MasterFormat™

2004 Edition Numbers & Titles


The numbers and titles presented here are identical to the MasterFormat™ 2004 Edition Numbers and Titles that were distributed on June 8, 2004 and revised in August 2004, save for additional selected title corrections that were made in the process of copy editing the MasterFormat publication. These corrections are listed separately on http://www.csinet.org/MasterFormat. The numbers and titles presented here are identical to the numbers and titles presented in the full MasterFormat 2004 Edition (2nd printing, October 2005) publication available for purchase from CSI and CSC.

MasterFormat™ is the specifications-writing standard for most commercial building design and construction projects in North America. It lists titles and section numbers for organizing data about construction requirements, products, and activities. By standardizing such information, MasterFormat facilitates communication among architects, specifiers, contractors and suppliers, which helps them meet building owners’ requirements, timelines and budgets.

This revision of MasterFormat is the most significant in the product’s 40-year history, and reflects the growing volume and complexity of information generated for commercial construction projects. MasterFormat 2004 Edition: Numbers & Titles was developed by a team of individuals representing all stakeholders in the industry – owners, architects, engineers, contractors, manufacturers and facility managers. MasterFormat is intended to address specification requirements through the entire built lifecycle.

The Numbers and Titles are intentionally structured for anticipated growth and expansion in the future. CSI encourages all interested parties to provide input to CSI so that as the built environment evolves so can MasterFormat.

To learn more about MasterFormat 2004 Edition, go to http://www.csinet.org/MasterFormat for education programs, training, certification and local chapter information.
INTRODUCTION

Over the last forty years, MasterFormat™ has become the leading standard for organizing commercial construction specifications, and is now almost omnipresent in the AEC industry, thanks to the many applications to which it has been put. In 2001, the Construction Specifications Institute (CSI), along with sister organization Construction Specifications Canada (CSC), charged the MasterFormat Expansion Task Team with examining whether there was a need to revise and possibly expand the 1995 edition of MasterFormat to accommodate changes that have taken place in the industry since that version was published. The task team worked to develop a revised and expanded version of MasterFormat, consulting with all types of users, creating and distributing drafts, collecting and evaluating commentary, and attempting to bring all of this information into line with a vision of the construction industry that equally addresses the needs of next year and those of forty years from today. The 2004 edition of MasterFormat promises to be the most dramatic revision in the document’s forty-year history, and one that will position it to excel at organizing construction information for a wider array of project types and currently unforeseen technology for the next forty years and beyond.

MasterFormat 2004 Edition: Numbers and Titles is a master list of numbers and subject titles for organizing information about construction work results, requirements, products, and activities into a standard sequence. Construction projects use many different delivery methods, products, and installation methods. Successful completion of projects requires effective communication among the people involved. Information retrieval is nearly impossible without a standard filing system familiar to each user. MasterFormat Numbers and Titles facilitate standard filing and retrieval schemes throughout the construction industry. MasterFormat Numbers and Titles are suitable for use in project manuals, for organizing cost data, reference keynote on drawings, for filing product information and other technical data, for identifying drawing objects and for presenting construction market data.

Each MasterFormat number and title defines a “section,” arranged in “levels” depending on their breadth of coverage. The broadest collections of related construction products and activities are level one titles, otherwise known as “divisions.” Each division in the MasterFormat 2004 Edition: Numbers and Titles is made up of level two, level three, and occasionally level four numbers and titles assigned by MasterFormat, each of which delineate a gradually more detailed area of work results to be specified. Work results are defined as traditional construction practices that typically result from an application of skills to construction products or resources. A further explanation of how to use each of the individual titles listed in MasterFormat 2004 Edition: Numbers and Titles is provided in the complete MasterFormat 2004 Edition publication, available from CSI and CSC in late 2004. Along with these scope and usage notes, the complete publication includes other added information designed to make its use easier, including a keyword index of requirements, products, and activities to help users find appropriate numbers and titles for construction subjects and an application guide to advise users of best practices for the use of MasterFormat titles and numbers.

MASTERFORMAT 2004 EDITION DEVELOPMENT:

The MasterFormat Expansion Task Team started their work in April 2001 by reaching out to the AEC industry and soliciting commentary on the proposal to revise and expand MasterFormat. Based on this commentary, the task team embarked on the long process of revising and developing content for the 2004 edition. Throughout its work, the task team’s progress from draft to draft was driven by evaluating the commentary given by MasterFormat’s users, and integrating that with the central challenge – maintaining a balance between meeting the needs of today and working to help implement a broader vision of an integrated construction information marketplace that will soon be pervasive in the way we conduct our everyday work. The task team explored many possible options for maintaining this balance between the demands of the present and those of the near future, and the need that underlies it, to create
the best and most flexible and forward-thinking expansion, and do so without taking this effort beyond the bounds of user acceptance. For just as it would be senseless to create a 2004 edition of MasterFormat that was not flexible or forward-thinking and was thus ill-equipped to meet the challenges and needs that lie ahead, so too would it be pointless to create one that was so forward-thinking that it was unacceptable to today’s users and as a result was not implemented. Having incorporated the input of literally hundreds of individuals and organizations into their work, the task team is proud to now present the title and number contents and organization of the next edition of this industry standard, MasterFormat 2004 Edition: Numbers and Titles.

**MASTERFORMAT 2004 EDITION NUMBERING REVISION EXPLAINED:**

One of the most significant changes in the MasterFormat 2004 Edition is the adoption of a six-digit numbering system in place of the familiar five-digit system that has been used in MasterFormat since the 1978 edition. This six-digit system was first introduced in drafts issued in early 2003, and then accepted by the task team for all subsequent drafts, and provides exponentially more expansion spaces per level than the five-digit system, all but eliminating concerns about future expansion.

The familiar five-digit numbers in MasterFormat 1995 Edition are divided in the following fashion:

**03 2 0 0** – Concrete Reinforcement

The first two digits, in this case “03” represent the division number, otherwise known as “level one.” Each of the next three digits are taken individually, each representing one level of classification, or levels two, three, and four. Typically in MasterFormat, level four numbers are not assigned and are left as zero, to provide maximum flexibility for individual users.

The new six-digit MasterFormat 2004 numbers work in a slightly different fashion:

**03 20 00** – Concrete Reinforcing

As was the case with the old numbers, the first two digits, in this case also “03,” still represent the division number, otherwise still known as “level one.” But here’s where the difference comes in. The next pair of numbers, in this case “20” represents level two, and the third pair, “00,” represents level three. Generally, level four numbers are not defined by the listed MasterFormat numbers, but when they are, an additional pair of digits is attached to the end, preceded by a “dot.” Level four numbers have only been used at locations in which the amount of detail merits the additional level of classification. Level four numbers appear like this:

**03 52 16.13** Lightweight Cellular Insulating Concrete

Additional recommendations for the use of level four and level five will be included in the MasterFormat 2004 Edition application guide and throughout the full publication, preserving a level of user modifiable numbers for flexibility. More importantly, because each level of classification is represented by a pair of digits, there is room to address over ten times as many subjects at each level, providing flexibility and room for expansion that the five digit numbers could never provide, and providing it where it will have the most impact in addressing future needs for expansion to address new subject matter.

**MASTERFORMAT 2004 EDITION DIVISION CONTENTS:**

Though changes too numerous to list have been incorporated into the 2004 edition of MasterFormat, the following is a summary that compares the contents of the divisions that will compose MasterFormat 2004 Edition with MasterFormat 1995 Edition.
Division 00 – Procurement and Contracting Requirements: Essentially the same scope as MasterFormat 1995 Edition.
Division 01 – General Requirements: Area for performance requirements added to allow for writing performance requirements for elements that overlap work sections (building envelope, structure, etc.). This allows for a mixture of broad performance specifications and prescriptive specifications in a project manual.
Division 02 – Existing Conditions: This division is now limited to “existing conditions,” construction practices that relate to items at the site at the commencement of work – selective demolition, subsurface and other investigation, surveying, site decontamination, and site remediation, among others. All site construction as well as heavy civil and infrastructure subject matter, including utility and pavement work, has been relocated to the Site and Infrastructure Subgroup.
Division 03 – Concrete, 04 – Masonry, and 05 – Metals: Essentially the same scope as MasterFormat 1995 Edition.
Division 06 – Wood, Plastics, and Composites: Essentially the same scope as MasterFormat 1995 Edition with expansion in the areas of plastics and composites.
Division 08 – Openings: Renamed but with essentially the same scope of as MasterFormat 1995 Edition with the addition of some other openings such as louvers and grilles.
Division 11 – Equipment: Equipment related to process engineering has been relocated to the Process Equipment Subgroup and equipment related to infrastructure has been relocated to the Site and Infrastructure Subgroup.
Division 12 – Furnishings: Essentially the same scope as MasterFormat 1995 Edition.
Division 13 – Special Construction: Special construction related to process engineering has been relocated to the Process Equipment Subgroup. Security access, building automation, detection and alarm, and fire suppression subjects have been relocated to the Facility Services Subgroup.
Division 14 – Conveying Equipment: Renamed with process related material handling subjects relocated to the Process Equipment Subgroup.
Division 15 – Mechanical: Division 15 has been reserved for future expansion and material has been relocated to Division 22 – Plumbing and Division 23 – Heating, Ventilating, and Air Conditioning in the Facility Services Subgroup.
Division 16 - Electrical: Division 16 has been reserved for future expansion and material has been relocated to Divisions 26 – Electrical and 27 – Communications in the Facility Services Subgroup.

Facility Services Subgroup: This subgroup retains the same basic content as published in Draft 4, but with some new divisions, arranged in a revised order.

Site and Infrastructure Subgroup: This subgroup contains heavy civil and utility subject matter, as well as site construction material moved from Division 2 in MasterFormat 1995 Edition.


Process Equipment Subgroup: Some material in this subgroup is new to MasterFormat 2004 Edition, while some has been relocated from Divisions 11, 13, and 14 in MasterFormat 1995 Edition.

Division 40 – Process Integration: Process facilities are composed of a variety of subsystems, tied together and integrated by distribution pathways, control, and instrumentation. All of these systems must work together as a whole. This division includes elements used to tie these systems together: piping, heat tracing, insulation, and instrumentation and control systems, and also provides a place to specify commissioning requirements for the subsystems and the facility as a whole.

Division 41 – Material Processing and Handling Equipment: Equipment for processing and conditioning of raw materials; material handling equipment for bulk materials as well as discrete units; manufacturing equipment and machinery, test equipment, and packaging / shipping systems.

Division 42 – Process Heating, Cooling, and Drying Equipment: Equipment for process heating, cooling and drying of materials, liquids, gases and manufactured items and materials.

Division 43 – Process Gas and Liquid Handling, Purification and Storage Equipment: Equipment for handling, purification and storage of process liquids, gases, slurries; includes atmospheric tanks as well as pressure vessels.

Division 44 – Pollution Control Equipment: Equipment for controlling emission of contaminants from manufacturing processes and treatment of air, water, soils and noise contaminants.

Division 45 – Industry-Specific Manufacturing Equipment: A division in which users can specify equipment that is used only within a single industry. All industries currently identified within the North American Industry Classification System (NAICS) are allocated space within the division.

Division 48 – Electrical Power Generation: Plants and equipment for the generation and control of electrical power from fossil fuel, nuclear energy, hydroelectric, wind, solar energy, geothermal energy, electrochemical energy, and fuel cells.

Divisions not named above are explicitly reserved to provide space for future development and expansion. To minimize costs resulting from potential future expansions, it’s not recommended that users populate these divisions with their own material.

**MASTERFORMAT 2004 EDITION AND OTHER INDUSTRY CLASSIFICATION EFFORTS**

The MasterFormat Expansion Task Team’s work also envisions the expanded content of MasterFormat serving to inform Table 22 (Work Results) of the OmniClass Construction Classification System (OCCS), a multi-table system for organizing information used by the AEC industry. CSI has worked with the cross-industry group responsible for the creation and maintenance of this standard, the OCCS Development Committee, to ensure that MasterFormat is compatible with OmniClass. As a result, the full version of MasterFormat will be one of the first applications of the OCCS. Once fully developed, the OCCS will be the basis for deriving relational applications, and will support and empower the transfer and use of information in the construction marketplace, ultimately serving all participants who work to sustain the built environment throughout the entire life cycle. MasterFormat’s 2004 edition will play an important role in this activity.

The 2004 edition of MasterFormat replaces the 1995 edition and is produced jointly by The Construction Specifications Institute (CSI); (800) 689-2900, and Construction Specifications Canada (CSC); (416)777-2198. For those interested in more information about MasterFormat and its use in the construction industry contact CSI Member Service at (800) 689-2900 or consult the web at www.CSI.Net/MasterFormat.
Division Numbers and Titles

PROCUREMENT AND CONTRACTING REQUIREMENTS GROUP
Division 00   Procurement and Contracting Requirements

SPECIFICATIONS GROUP

GENERAL REQUIREMENTS SUBGROUP
Division 01   General Requirements

FACILITY CONSTRUCTION SUBGROUP
Division 02   Existing Conditions
Division 03   Concrete
Division 04   Masonry
Division 05   Metals
Division 06   Wood, Plastics, and Composites
Division 07   Thermal and Moisture Protection
Division 08   Openings
Division 09   Finishes
Division 10   Specialties
Division 11   Equipment
Division 12   Furnishings
Division 13   Special Construction
Division 14   Conveying Equipment
Division 15   Reserved
Division 16   Reserved
Division 17   Reserved
Division 18   Reserved
Division 19   Reserved

FACILITY SERVICES SUBGROUP
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Division 21   Fire Suppression
Division 22   Plumbing
Division 23   Heating, Ventilating, and Air Conditioning
Division 24   Reserved
Division 25   Integrated Automation
Division 26   Electrical
Division 27   Communications
Division 28   Electronic Safety and Security
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SITE AND INFRASTRUCTURE SUBGROUP
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Division 33   Utilities
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Division 37   Reserved
Division 38   Reserved
Division 39   Reserved

PROCESS EQUIPMENT SUBGROUP
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Division 43   Process Gas and Liquid Handling, Purification, and Storage Equipment
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Division 45   Industry-Specific Manufacturing Equipment
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DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

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04 71 00 Manufactured Brick Masonry
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04 80 00 Unassigned

04 90 00 Unassigned
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    05 01 20  Maintenance of Metal Joists
    05 01 30  Maintenance of Metal Decking
    05 01 40  Maintenance of Cold-Formed Metal Framing
    05 01 50  Maintenance of Metal Fabrications
    05 01 70  Maintenance of Decorative Metal
      05 01 70.91  Historic Treatment of Decorative Metal
  05 05 00  Common Work Results for Metals
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    05 06 50  Schedules for Metal Fabrications
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    05 12 16  Fabricated Fireproofed Steel Columns
    05 12 23  Structural Steel for Buildings
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  05 13 00  Structural Stainless-Steel Framing
  05 14 00  Structural Aluminum Framing
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 05 45 13  Mechanical Metal Supports
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 05 51 19  Metal Grating Stairs
 05 51 23  Metal Fire Escapes
 05 51 33  Metal Ladders
 05 51 33.13  Vertical Metal Ladders
 05 51 33.16  Inclined Metal Ladders
 05 51 33.23  Alternating Tread Ladders
 05 51 36  Catwalks
 05 51 36.13  Metal Catwalks
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05 59 00  Metal Specialties
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05 71 00  Decorative Metal Stairs
05 71 13  Fabricated Metal Spiral Stairs

05 73 00  Decorative Metal Railings
05 73 13  Glazed Decorative Metal Railings
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05 74 00  Decorative Metal Castings

05 75 00  Decorative Formed Metal

05 76 00  Decorative Forged Metal

05 80 00  Unassigned

05 90 00  Unassigned
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      06 01 10.71  Rough Carpentry Rehabilitation
      06 01 10.91  Rough Carpentry Restoration
      06 01 10.92  Rough Carpentry Preservation
    06 01 20  Maintenance of Finish Carpentry
      06 01 20.71  Finish Carpentry Rehabilitation
      06 01 20.91  Finish Carpentry Restoration
      06 01 20.92  Finish Carpentry Preservation
    06 01 40  Maintenance of Architectural Woodwork
      06 01 40.51  Architectural Woodwork Cleaning
      06 01 40.61  Architectural Woodwork Refinishing
      06 01 40.91  Architectural Woodwork Restoration
    06 01 50  Maintenance of Structural Plastics
    06 01 60  Maintenance of Plastic Fabrications
      06 01 60.51  Plastic Cleaning
      06 01 60.71  Plastic Rehabilitation
      06 01 60.91  Plastic Restoration
      06 01 60.92  Plastic Preservation
    06 01 70  Maintenance of Structural Composites
    06 01 80  Maintenance of Composite Assemblies
      06 01 80.51  Composite Cleaning
      06 01 80.71  Composite Rehabilitation
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06 05 00  Common Work Results for Wood, Plastics, and Composites
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      06 05 73.13  Fire-Retardant Wood Treatment
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      06 05 73.93  Eradication of Insects in Wood
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  06 06 60  Schedules for Plastic Fabrications
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      06 13 13.91 Period Horizontal Log Work
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06 15 00 Wood Decking
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   06 15 16 Wood Roof Decking
   06 15 19 Timber Decking
   06 15 23 Laminated Wood Decking
   06 15 33 Wood Patio Decking

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   06 16 13 Insulating Sheathing
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   06 16 26 Underlayment
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   06 16 33 Wood Board Sheathing
   06 16 36 Wood Panel Product Sheathing
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   06 17 13 Laminated Veneer Lumber
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   06 17 33 Wood I-Joists
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06 18 00 Glued-Laminated Construction
   06 18 13 Glued-Laminated Beams
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   06 20 13 Exterior Finish Carpentry
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   06 22 13 Standard Pattern Wood Trim
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07 01 20  Maintenance of Thermal Protection

07 01 30  Maintenance of Steep Slope Roofing

07 01 40  Maintenance of Roofing and Siding Panels

07 01 50  Maintenance of Membrane Roofing

07 01 50.13  Roof Moisture Survey

07 01 50.16  Roof Maintenance Program

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07 01 50.23  Roof Removal

07 01 50.61  Roof Re-Coating

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07 01 60.71  Flashing and Sheet Metal Rehabilitation

07 01 60.91  Flashing and Sheet Metal Restoration

07 01 60.92  Flashing and Sheet Metal Preservation

07 01 70  Operation and Maintenance of Roof Specialties and Accessories

07 01 80  Maintenance of Fire and Smoke Protection

07 01 90  Maintenance of Joint Protection

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07 16 16  Crystalline Waterproofing
07 16 19  Metal Oxide Waterproofing

07 17 00  Bentonite Waterproofing
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07 52 19  Self-Adhering Modified Bituminous Membrane Roofing

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07 53 16  Chlorosulfonate-Polyethylene Roofing
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07 54 16  Ethylene-Interpolymer Roofing
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08 88 39  Pressure-Resistant Glazing
08 88 49  Radiation-Resistant Glazing
08 88 53  Security Glazing
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08 90 00  LOUVERS AND VENTS
08 91 00  Louvers
08 91 13  Motorized Wall Louvers
08 91 16  Operable Wall Louvers
08 91 19  Fixed Louvers
08 91 26  Door Louvers

08 92 00  Louvered Equipment Enclosures
08 95 00  Vents
08 95 13  Soffit Vents
08 95 16  Wall Vents
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09 00 00  FINISHES
  09 01 00  Maintenance of Finishes
    09 01 20  Maintenance of Plaster and Gypsum Board
      09 01 20.91  Plaster Restoration
    09 01 30  Maintenance of Tiling
      09 01 30.91  Tile Restoration
    09 01 50  Maintenance of Ceilings
    09 01 60  Maintenance of Flooring
      09 01 60.91  Flooring Restoration
    09 01 70  Maintenance of Wall Finishes
      09 01 70.91  Wall Finish Restoration
    09 01 80  Maintenance of Acoustic Treatment
    09 01 90  Maintenance of Painting and Coating
      09 01 90.51  Paint Cleaning
      09 01 90.52  Maintenance Repainting
      09 01 90.53  Maintenance Coatings
      09 01 90.61  Repainting
      09 01 90.91  Paint Restoration
      09 01 90.92  Coating Restoration
      09 01 90.93  Paint Preservation
  09 05 00  Common Work Results for Finishes
    09 05 13  Common Finishes
  09 06 00  Schedules for Finishes
    09 06 00.13  Room Finish Schedule
    09 06 20  Schedules for Plaster and Gypsum Board
    09 06 30  Schedules for Tiling
    09 06 50  Schedules for Ceilings
    09 06 60  Schedules for Flooring
    09 06 70  Schedules for Wall Finishes
    09 06 80  Schedules for Acoustical Treatment
    09 06 90  Schedules for Painting and Coating
      09 06 90.13  Paint Schedule
  09 08 00  Commissioning of Finishes

09 10 00  Unassigned

09 20 00  PLASTER AND GYPSUM BOARD
  09 21 00  Plaster and Gypsum Board Assemblies
    09 21 13  Plaster Assemblies
    09 21 16  Gypsum Board Assemblies
      09 21 16.23  Gypsum Board Shaft Wall Assemblies
      09 21 16.33  Gypsum Board Area Separation Wall Assemblies
  09 22 00  Supports for Plaster and Gypsum Board
    09 22 13  Metal Furring
      09 22 13.13  Metal Channel Furring
      09 22 13.23  Resilient Channel Furring
    09 22 16  Non-Structural Metal Framing
09 22 16.13  Non-Structural Metal Stud Framing
09 22 26  Suspension Systems
  09 22 26.23  Metal Suspension Systems
  09 22 26.33  Plastic Suspension Systems
09 22 36  Lath
  09 22 36.13  Gypsum Lath
  09 22 36.23  Metal Lath
09 22 39  Veneer Plaster Base

09 23 00  Gypsum Plastering
  09 23 13  Acoustical Gypsum Plastering
  09 23 82  Fireproof Gypsum Plastering

09 24 00  Portland Cement Plastering
  09 24 13  Adobe Finish
  09 24 23  Portland Cement Stucco
  09 24 33  Portland Cement Parging

09 25 00  Other Plastering
  09 25 13  Acrylic Plastering
    09 25 13.13  Acrylic Plaster Finish
  09 25 23  Lime Based Plastering

09 26 00  Veneer Plastering
  09 26 13  Gypsum Veneer Plastering

09 27 00  Plaster Fabrications
  09 27 13  Glass-Fiber-Reinforced Plaster Fabrications
  09 27 23  Simulated Plaster Fabrications

09 28 00  Backing Boards and Underlayments
  09 28 13  Cementitious Backing Boards
  09 28 16  Glass-Mat Faced Gypsum Backing Boards
  09 28 19  Fibered Gypsum Backing Boards

09 29 00  Gypsum Board
  09 29 82  Gypsum Board Fireproofing

09 30 00  TILING
  09 30 13  Ceramic Tiling
  09 30 16  Quarry Tiling
  09 30 19  Paver Tiling
  09 30 23  Glass Mosaic Tiling
  09 30 26  Plastic Tiling
  09 30 29  Metal Tiling
  09 30 33  Stone Tiling

09 31 00  Thin-Set Tiling
  09 31 13  Thin-Set Ceramic Tiling
  09 31 16  Thin-Set Quarry Tiling
  09 31 19  Thin-Set Paver Tiling
  09 31 23  Thin-Set Glass Mosaic Tiling
  09 31 26  Thin-Set Plastic Tiling
  09 31 29  Thin-Set Metal Tiling
  09 31 33  Thin-Set Stone Tiling

09 32 00  Mortar-Bed Tiling
  09 32 13  Mortar-Bed Ceramic Tiling
  09 32 16  Mortar-Bed Quarry Tiling
  09 32 19  Mortar-Bed Paver Tiling
09 32 23 Mortar-Bed Glass Mosaic Tiling
09 32 26 Mortar-Bed Plastic Tiling
09 32 29 Mortar-Bed Metal Tiling
09 32 33 Mortar-Bed Stone Tiling

09 33 00 Conductive Tiling
09 33 13 Conductive Ceramic Tiling
09 33 16 Conductive Quarry Tiling
09 33 19 Conductive Paver Tiling
09 33 23 Conductive Glass Mosaic Tiling
09 33 26 Conductive Plastic Tiling
09 33 29 Conductive Metal Tiling
09 33 33 Conductive Stone Tiling

09 34 00 Waterproofing-Membrane Tiling
09 34 13 Waterproofing-Membrane Ceramic Tiling
09 34 16 Waterproofing-Membrane Quarry Tiling
09 34 19 Waterproofing-Membrane Paver Tiling
09 34 23 Waterproofing-Membrane Glass Mosaic Tiling
09 34 26 Waterproofing-Membrane Plastic Tiling
09 34 29 Waterproofing-Membrane Metal Tiling
09 34 33 Waterproofing-Membrane Stone Tiling

09 35 00 Chemical-Resistant Tiling
09 35 13 Chemical-Resistant Ceramic Tiling
09 35 16 Chemical-Resistant Quarry Tiling
09 35 19 Chemical-Resistant Paver Tiling
09 35 23 Chemical-Resistant Glass Mosaic Tiling
09 35 26 Chemical-Resistant Plastic Tiling
09 35 29 Chemical-Resistant Metal Tiling
09 35 33 Chemical-Resistant Stone Tiling

09 40 00 Unassigned

09 50 00 Ceilings

09 51 00 Acoustical Ceilings
09 51 13 Acoustical Panel Ceilings
09 51 23 Acoustical Tile Ceilings
09 51 33 Acoustical Metal Pan Ceilings
09 51 33.13 Acoustical Snap-in Metal Pan Ceilings
09 51 53 Direct-Applied Acoustical Ceilings

09 53 00 Acoustical Ceiling Suspension Assemblies
09 53 13 Curved Profile Ceiling Suspension Assemblies
09 53 23 Metal Acoustical Ceiling Suspension Assemblies
09 53 33 Plastic Acoustical Ceiling Suspension Assemblies

09 54 00 Specialty Ceilings
09 54 13 Open Metal Mesh Ceilings
09 54 16 Luminous Ceilings
09 54 19 Mirror Panel Ceilings
09 54 23 Linear Metal Ceilings
09 54 26 Linear Wood Ceilings
09 54 33 Decorative Panel Ceilings
09 54 36 Suspended Decorative Grids
09 54 43 Stretched-Fabric Ceiling Systems
09 54 46 Fabric-Wrapped Ceiling Panels

09 56 00 Textured Ceilings
09 56 13 Gypsum-Panel Textured Ceilings
09 56 16 Metal-Panel Textured Ceilings

09 57 00 Special Function Ceilings
09 57 53 Security Ceiling Assemblies

09 58 00 Integrated Ceiling Assemblies

09 60 00 FLOORING

09 61 00 Flooring Treatment
09 61 13 Slip-Resistant Flooring Treatment
09 61 36 Static-Resistant Flooring Treatment

09 62 00 Specialty Flooring
09 62 13 Asphalitic Plank Flooring
09 62 19 Laminate Flooring
09 62 23 Bamboo Flooring
09 62 26 Leather Flooring
09 62 29 Cork Flooring
09 62 35 Acid-Resistant Flooring
09 62 48 Acoustic Flooring

09 63 00 Masonry Flooring
09 63 13 Brick Flooring
09 63 13.35 Chemical-Resistant Brick Flooring
09 63 40 Stone Flooring
09 63 43 Composition Stone Flooring

09 64 00 Wood Flooring
09 64 16 Wood Block Flooring
09 64 19 Wood Composition Flooring
09 64 23 Wood Parquet Flooring
09 64 23.13 Acrylic-Impregnated Wood Parquet Flooring
09 64 29 Wood Strip and Plank Flooring
09 64 33 Laminated Wood Flooring
09 64 53 Resilient Wood Flooring Assemblies
09 64 66 Wood Athletic Flooring

09 65 00 Resilient Flooring
09 65 13 Resilient Base and Accessories
09 65 13.13 Resilient Base
09 65 13.23 Resilient Stair Treads and Risers
09 65 13.26 Resilient Stair Nosings
09 65 13.33 Resilient Accessories
09 65 13.36 Resilient Carpet Transitions
09 65 16 Resilient Sheet Flooring
09 65 16.13 Linoleum Flooring
09 65 19 Resilient Tile Flooring
09 65 33 Conductive Resilient Flooring
09 65 36 Static-Control Resilient Flooring
09 65 36.13 Static-Dissipative Resilient Flooring
09 65 36.16 Static-Resistant Resilient Flooring
09 65 66 Resilient Athletic Flooring

09 66 00 Terrazzo Flooring
09 66 13 Portland Cement Terrazzo Flooring
09 66 13.13 Sand Cushion Terrazzo Flooring
09 66 13.16 Monolithic Terrazzo Flooring
09 66 13.19 Bonded Terrazzo Flooring
09 66 13.23 Palladina Terrazzo Flooring
09 66 13.26 Rustic Terrazzo Flooring
09 66 13.33 Structural Terrazzo Flooring
09 66 16 Terrazzo Floor Tile
09 66 16.13 Portland Cement Terrazzo Floor Tile
09 66 16.16 Plastic-Matrix Terrazzo Floor Tile
09 66 23 Resinous Matrix Terrazzo Flooring
09 66 23.13 Polyacrylate Modified Cementitious Terrazzo Flooring
09 66 23.16 Epoxy-Resin Terrazzo Flooring
09 66 23.19 Polyester-Resin Terrazzo Flooring
09 66 33 Conductive Terrazzo Flooring
09 66 33.13 Conductive Epoxy-Resin Terrazzo
09 66 33.16 Conductive Polyester-Resin Terrazzo Flooring
09 66 33.19 Conductive Plastic-Matrix Terrazzo Flooring

09 67 00 Fluid-Applied Flooring
09 67 13 Elastomeric Liquid Flooring
09 67 13.33 Conductive Elastomeric Liquid Flooring
09 67 16 Epoxy-Marble Chip Flooring
09 67 19 Magnesium-Oxychloride Flooring
09 67 23 Resinous Flooring
09 67 26 Quartz Flooring
09 67 66 Fluid-Applied Athletic Flooring

09 68 00 Carpeting
09 68 13 Tile Carpeting
09 68 16 Sheet Carpeting

09 69 00 Access Flooring
09 69 13 Rigid-Grid Access Flooring
09 69 16 Snap-on Stringer Access Flooring
09 69 19 Stringerless Access Flooring
09 69 53 Access Flooring Accessories
09 69 56 Access Flooring Stairs and Stringers

09 70 00 WALL FINISHES

09 72 00 Wall Coverings
09 72 13 Cork Wall Coverings
09 72 16 Vinyl-Coated Fabric Wall Coverings
09 72 16.13 Flexible Vinyl Wall Coverings
09 72 16.16 Rigid-Sheet Vinyl Wall Coverings
09 72 19 Textile Wall Coverings
09 72 23 Wallpapering

09 73 00 Wall Carpeting

09 74 00 Flexible Wood Sheets
09 74 13 Wood Wall Coverings
09 74 16 Flexible Wood Veneers

09 75 00 Stone Facing

09 76 00 Plastic Blocks

09 77 00 Special Wall Surfacing
09 77 13 Stretched-Fabric Wall Systems
09 77 23 Fabric-Wrapped Panels
09 80 00  Acoustic Treatment
  09 81 00  Acoustic Insulation
    09 81 13  Acoustic Board Insulation
    09 81 16  Acoustic Blanket Insulation
    09 81 29  Sprayed Acoustic Insulation
  09 83 00  Acoustic Finishes
    09 83 13  Acoustic Wall Coating
    09 83 16  Acoustic Ceiling Coating
    09 83 22  Acoustic Drapery
  09 84 00  Acoustic Room Components
    09 84 13  Fixed Sound-Absorptive Panels
    09 84 16  Fixed Sound-Reflective Panels
    09 84 23  Moveable Sound-Absorptive Panels
    09 84 26  Moveable Sound-Reflective Panels
    09 84 33  Sound-Absorbing Wall Units
    09 84 36  Sound-Absorbing Ceiling Units

09 90 00  Painting and Coating
  09 91 00  Painting
    09 91 13  Exterior Painting
    09 91 23  Interior Painting
  09 93 00  Staining and Transparent Finishing
    09 93 13  Exterior Staining and Finishing
      09 93 13.13  Exterior Staining
      09 93 13.53  Exterior Finishing
    09 93 23  Interior Staining and Finishing
      09 93 23.13  Interior Staining
      09 93 23.53  Interior Finishing
  09 94 00  Decorative Finishing
    09 94 13  Textured Finishing
    09 94 16  Faux Finishing
    09 94 19  Multicolor Interior Finishing
  09 96 00  High-Performance Coatings
    09 96 13  Abrasion-Resistant Coatings
    09 96 23  Graffiti-Resistant Coatings
    09 96 26  Marine Coatings
    09 96 33  High-Temperature-Resistant Coatings
    09 96 35  Chemical-Resistant Coatings
    09 96 43  Fire-Retardant Coatings
    09 96 46  Intumescent Painting
    09 96 53  Elastomeric Coatings
    09 96 56  Epoxy Coatings
    09 96 59  High-Build Glazed Coatings
    09 96 63  Textured Plastic Coatings
    09 96 66  Aggregate Wall Coatings
  09 97 00  Special Coatings
    09 97 13  Steel Coatings
      09 97 13.13  Interior Steel Coatings
      09 97 13.23  Exterior Steel Coatings
    09 97 23  Concrete and Masonry Coatings
    09 97 26  Cementitious Coatings
09 97 26.13  Interior Cementitious Coatings
09 97 26.23  Exterior Cementitious Coatings
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10 00 00  SPECIALTIES
   10 01 00  Operation and Maintenance of Specialties
       10 01 10  Operation and Maintenance of Information Specialties
       10 01 20  Operation and Maintenance of Interior Specialties
       10 01 30  Operation and Maintenance of Fireplaces and Stoves
       10 01 40  Operation and Maintenance of Safety Specialties
       10 01 50  Operation and Maintenance of Storage Specialties
       10 01 70  Operation and Maintenance of Exterior Specialties
       10 01 80  Operation and Maintenance of Other Specialties

10 05 00  Common Work Results for Specialties
10 06 00  Schedules for Specialties
   10 06 10  Schedules for Information Specialties
       10 06 10.13  Exterior Signage Schedule
       10 06 10.16  Interior Signage Schedule
       10 06 20  Schedules for Interior Specialties
       10 06 30  Schedules for Fireplaces and Stoves
       10 06 40  Schedules for Safety Specialties
       10 06 50  Schedules for Storage Specialties
       10 06 70  Schedules for Exterior Specialties
       10 06 80  Schedules for Other Specialties

10 08 00  Commissioning of Specialties

10 10 00  INFORMATION SPECIALTIES
   10 11 00  Visual Display Surfaces
       10 11 13  Chalkboards
       10 11 13.13  Fixed Chalkboards
       10 11 13.23  Modular-Support-Mounted Chalkboards
       10 11 13.33  Rail-Mounted Chalkboards
       10 11 13.43  Portable Chalkboards
       10 11 16  Markerboards
       10 11 16.13  Fixed Markerboards
       10 11 16.23  Modular-Support-Mounted Markerboards
       10 11 16.33  Rail-Mounted Markerboards
       10 11 16.43  Portable Markerboards
       10 11 16.53  Electronic Markerboards
       10 11 23  Tackboards
       10 11 23.13  Fixed Tackboards
       10 11 23.23  Modular-Support-Mounted Tackboards
       10 11 23.33  Rail-Mounted Tackboards
       10 11 23.43  Portable Tackboards
       10 11 33  Sliding Visual Display Units
       10 11 33.13  Horizontal-Sliding Visual Display Units
       10 11 33.23  Vertical-Sliding Visual Display Units
       10 11 36  Visual Display Conference Units
       10 11 39  Visual Display Rails
       10 11 43  Visual Display Wall Panels
10 11 46  Visual Display Fabrics

10 12 00  Display Cases

10 13 00  Directories
  10 13 13  Electronic Directories

10 14 00  Signage
  10 14 16  Plaques
  10 14 19  Dimensional Letter Signage
  10 14 23  Panel Signage
    10 14 23.13  Engraved Panel Signage
  10 14 26  Post and Panel/Pylon Signage
  10 14 33  Illuminated Panel Signage
  10 14 36  Non-Illuminated Panel Signage
  10 14 43  Photoluminescent Signage
  10 14 53  Traffic Signage
    10 14 53.13  Transportation Reference Markers
  10 14 63  Electronic Message Signage
  10 14 66  Floating Signage

10 17 00  Telephone Specialties
  10 17 13  Telephone Directory Units
  10 17 16  Telephone Enclosures
    10 17 16.13  Telephone Stalls
    10 17 16.16  Telephone Alcoves
  10 17 19  Telephone Shelving

10 18 00  Informational Kiosks

10 20 00  Interior Specialties

10 21 00  Compartments and Cubicles
  10 21 13  Toilet Compartments
    10 21 13.13  Metal Toilet Compartments
    10 21 13.16  Plastic-Laminate-Clad Toilet Compartments
    10 21 13.19  Plastic Toilet Compartments
    10 21 13.23  Particleboard Toilet Compartments
    10 21 13.40  Stone Toilet Compartments
  10 21 16  Shower and Dressing Compartments
    10 21 16.13  Metal Shower and Dressing Compartments
    10 21 16.16  Plastic-Laminate-Clad Shower and Dressing Compartments
    10 21 16.19  Plastic Shower and Dressing Compartments
    10 21 16.23  Particleboard Shower and Dressing Compartments
    10 21 16.40  Stone Shower and Dressing Compartments
  10 21 23  Cubicles
    10 21 23.13  Cubicle Curtains
    10 21 23.16  Cubicle Track and Hardware

10 22 00  Partitions
  10 22 13  Wire Mesh Partitions
  10 22 16  Folding Gates
  10 22 19  Demountable Partitions
    10 22 19.13  Demountable Metal Partitions
    10 22 19.23  Demountable Wood Partitions
    10 22 19.33  Demountable Plastic Partitions
    10 22 19.43  Demountable Composite Partitions
    10 22 19.53  Demountable Gypsum Partitions
  10 22 23  Portable Partitions, Screens, and Panels
10 22 23.13  Wall Screens
10 22 23.23  Movable Panel Systems

10 22 26  Operable Partitions
  10 22 26.13  Accordion Folding Partitions
  10 22 26.23  Coiling Partitions
  10 22 26.33  Folding Panel Partitions
  10 22 26.43  Sliding Partitions

10 25 00  Service Walls
  10 25 13  Patient Bed Service Walls
  10 25 16  Modular Service Walls

10 26 00  Wall and Door Protection
  10 26 13  Corner Guards
  10 26 16  Bumper Guards
    10 26 16.13  Bumper Rails
    10 26 16.16  Protective Corridor Handrails
  10 26 23  Protective Wall Covering
  10 26 23.13  Impact Resistant Wall Protection
  10 26 33  Door and Frame Protection

10 28 00  Toilet, Bath, and Laundry Accessories
  10 28 13  Toilet Accessories
    10 28 13.13  Commercial Toilet Accessories
    10 28 13.19  Healthcare Toilet Accessories
    10 28 13.53  Security Toilet Accessories
    10 28 13.63  Detention Toilet Accessories
  10 28 16  Bath Accessories
    10 28 16.13  Residential Bath Accessories
  10 28 19  Tub and Shower Doors
    10 28 19.16  Shower Doors
    10 28 19.19  Tub Doors
  10 28 23  Laundry Accessories
    10 28 23.13  Built-In Ironing Boards
    10 28 23.16  Clothes Drying Racks

10 30 00  FIRESPLACES AND STOVES

10 31 00  Manufactured Fireplaces
  10 31 13  Manufactured Fireplace Chimneys
  10 31 16  Manufactured Fireplace Forms

10 32 00  Fireplace Specialties
  10 32 13  Fireplace Dampers
  10 32 16  Fireplace Inserts
  10 32 19  Fireplace Screens
  10 32 23  Fireplace Doors
  10 32 26  Fireplace Water Heaters

10 35 00  Stoves
  10 35 13  Heating Stoves
  10 35 23  Cooking Stoves

10 40 00  SAFETY SPECIALTIES

10 41 00  Emergency Access and Information Cabinets
  10 41 13  Fire Department Plan Cabinets
  10 41 16  Emergency Key Cabinets

10 43 00  Emergency Aid Specialties
10 43 13  Defibrillator Cabinets
10 43 16  First Aid Cabinets

10 44 00  Fire Protection Specialties
  10 44 13  Fire Extinguisher Cabinets
    10 44 13.53  Security Fire Extinguisher Cabinets
  10 44 16  Fire Extinguishers
    10 44 16.13  Portable Fire Extinguishers
    10 44 16.16  Wheeled Fire Extinguisher Units
  10 44 33  Fire Blankets and Cabinets
  10 44 43  Fire Extinguisher Accessories

10 50 00  Storage Specialties

10 51 00  Lockers
  10 51 13  Metal Lockers
  10 51 16  Wood Lockers
  10 51 23  Plastic-Laminate-Clad Lockers
  10 51 26  Plastic Lockers
    10 51 26.13  Recycled Plastic Lockers
  10 51 33  Glass Lockers
  10 51 43  Wire Mesh Storage Lockers
  10 51 53  Locker Room Benches

10 55 00  Postal Specialties
  10 55 13  Central Mail Delivery Boxes
    10 55 13.13  Cluster Box Units
  10 55 16  Mail Collection Boxes
  10 55 19  Receiving Boxes
  10 55 23  Mail Boxes
    10 55 23.13  Apartment Mail Boxes
    10 55 23.16  Mail Box Directories
    10 55 23.19  Mail Box Key Keepers
  10 55 26  Parcel Lockers
  10 55 33  Data Distribution Boxes
  10 55 36  Package Depositories
  10 55 91  Mail Chutes

10 56 00  Storage Assemblies
  10 56 13  Metal Storage Shelving
    10 56 13.13  End-Panel-Support Metal Storage Shelving
    10 56 13.16  Post-and-Shelf Metal Storage Shelving
    10 56 13.19  Post-and-Beam Metal Storage Shelving
    10 56 13.23  Cantilever Metal Storage Shelving
  10 56 16  Fabricated Wood Storage Shelving
  10 56 19  Plastic Storage Shelving
    10 56 19.13  Recycled Plastic Storage Shelving
  10 56 23  Wire Storage Shelving
  10 56 26  Mobile Storage Shelving
    10 56 26.13  Manual Mobile Storage Shelving
    10 56 26.23  Motorized Mobile Storage Shelving
  10 56 29  Storage Racks
10 56 29.13 Flow Storage Racks
10 56 29.16 Pallet Storage Racks
10 56 29.19 Movable-Shelf Storage Racks
10 56 29.23 Stacker Storage Racks
10 56 29.26 Cantilever Storage Racks
10 56 29.29 Drive-In Storage Racks
10 56 29.33 Drive-Through Storage Racks
10 56 33 Mercantile Storage Assemblies

10 57 00 Wardrobe and Closet Specialties
10 57 13 Hat and Coat Racks
10 57 23 Closet and Utility Shelving
10 57 23.13 Wire Closet and Utility Shelving
10 57 23.16 Plastic-Laminate-Clad Closet and Utility Shelving
10 57 23.19 Wood Closet and Utility Shelving
10 57 33 Closet and Utility Shelving Hardware

10 60 00 Unassigned

10 70 00 EXTERIOR SPECIALTIES
10 71 00 Exterior Protection
10 71 13 Exterior Sun Control Devices
10 71 13.13 Exterior Shutters
10 71 13.19 Rolling Exterior Shutters
10 71 13.23 Coiling Exterior Shutters
10 71 13.26 Decorative Exterior Shutters
10 71 13.29 Side-Hinged Exterior Shutters
10 71 13.43 Fixed Sun Screens
10 71 16 Storm Panels
10 71 16.13 Demountable Storm Panels
10 71 16.16 Movable Storm Panels

10 73 00 Protective Covers
10 73 13 Awnings
10 73 16 Canopies
10 73 23 Car Shelters
10 73 26 Walkway Coverings
10 73 33 Marquees
10 73 43 Transportation Stop Shelters

10 74 00 Manufactured Exterior Specialties
10 74 13 Exterior Clocks
10 74 23 Cupolas
10 74 26 Spires
10 74 29 Steeples
10 74 33 Weather vanes
10 74 43 Below-Grade Egress Assemblies
10 74 46 Window Wells

10 75 00 Flagpoles
10 75 13 Automatic Flagpoles
10 75 16 Ground-Set Flagpoles
10 75 19 Nautical Flagpoles
10 75 23 Wall-Mounted Flagpoles

10 80 00 OTHER SPECIALTIES
10 81 00 Pest Control Devices
10 81 13  Bird Control Devices
10 81 16  Insect Control Devices
10 81 19  Rodent Control Devices

10 82 00  Grilles and Screens
    10 82 13  Exterior Grilles and Screens
    10 82 23  Interior Grilles and Screens

10 83 00  Flags and Banners
    10 83 13  Flags
    10 83 16  Banners

10 86 00  Security Mirrors and Domes

10 88 00  Scales

10 90 00  Unassigned
DIVISION 11 – EQUIPMENT

11 00 00  EQUIPMENT
   11 01 00  Operation and Maintenance of Equipment
      11 01 10  Operation and Maintenance of Vehicle and Pedestrian Equipment
      11 01 15  Operation and Maintenance of Security, Bank, and Detention Equipment
      11 01 20  Operation and Maintenance of Commercial Equipment
      11 01 30  Operation and Maintenance of Residential Equipment
      11 01 40  Operation and Maintenance of Foodservice Equipment
      11 01 50  Operation and Maintenance of Educational and Scientific Equipment
      11 01 56  Operation and Maintenance of Observatory Equipment
      11 01 60  Operation and Maintenance of Entertainment Equipment
      11 01 65  Operation and Maintenance of Athletic and Recreational Equipment
      11 01 70  Operation and Maintenance of Healthcare Equipment
      11 01 80  Operation and Maintenance of Collection and Disposal Equipment
      11 01 90  Operation and Maintenance of Other Equipment
   11 05 00  Common Work Results for Equipment
   11 06 00  Schedules for Equipment
      11 06 10  Schedules for Vehicle and Pedestrian Equipment
      11 06 15  Schedules for Security, Bank, and Detention Equipment
         11 06 15.13  Teller and Service Equipment Schedule
      11 06 20  Schedules for Commercial Equipment
      11 06 30  Schedules for Residential Equipment
      11 06 40  Schedules for Foodservice Equipment
         11 06 40.13  Foodservice Equipment Schedule
      11 06 50  Schedules for Educational and Scientific Equipment
      11 06 60  Schedules for Entertainment Equipment
      11 06 65  Schedules for Athletic and Recreational Equipment
      11 06 70  Schedules for Healthcare Equipment
         11 06 70.13  Healthcare Equipment Schedule
      11 06 80  Schedules for Collection and Disposal Equipment
      11 06 90  Schedules for Other Equipment
   11 08 00  Commissioning of Equipment

11 10 00  VEHICLE AND PEDESTRIAN EQUIPMENT
   11 11 00  Vehicle Service Equipment
      11 11 13  Compressed-Air Vehicle Service Equipment
      11 11 19  Vehicle Lubrication Equipment
      11 11 23  Tire-Changing Equipment
      11 11 26  Vehicle-Washing Equipment
   11 12 00  Parking Control Equipment
      11 12 13  Parking Key and Card Control Units
      11 12 16  Parking Ticket Dispensers
      11 12 23  Parking Meters
      11 12 26  Parking Fee Collection Equipment
         11 12 26.13  Parking Fee Coin Collection Equipment
      11 12 33  Parking Gates
   11 13 00  Loading Dock Equipment
11 13 13 Loading Dock Bumpers
11 13 16 Loading Dock Seals and Shelters
   11 13 16.13 Loading Dock Seals
   11 13 16.23 Loading Dock Shelters
   11 13 16.33 Loading Dock Rail Shelters
11 13 19 Stationary Loading Dock Equipment
   11 13 19.13 Loading Dock Levelers
   11 13 19.23 Stationary Loading Dock Lifts
   11 13 19.26 Loading Dock Truck Lifts
   11 13 19.33 Loading Dock Truck Restraints
11 13 23 Portable Dock Equipment
   11 13 23.13 Portable Dock Lifts
   11 13 23.16 Portable Dock Ramps
   11 13 23.19 Portable Dock Bridges
   11 13 23.23 Portable Dock Platforms
11 13 26 Loading Dock Lights

11 14 00 Pedestrian Control Equipment
11 14 13 Pedestrian Gates
   11 14 13.13 Portable Posts and Railings
   11 14 13.16 Rotary Gates
   11 14 13.19 Turnstiles
11 14 16 Money-Changing Equipment
   11 14 16.19 Money-Changing Machines
11 14 26 Pedestrian Fare Collection Equipment
   11 14 26.13 Pedestrian Coin Fare Collection Equipment
11 14 43 Pedestrian Detection Equipment
   11 14 43.13 Electronic Detection and Counting Systems
11 14 53 Pedestrian Security Equipment

11 15 00 SECURITY, DETENTION AND BANKING EQUIPMENT

11 16 00 Vault Equipment
   11 16 13 Safe Deposit Boxes
   11 16 16 Safes
   11 16 23 Vault Ventilators
11 17 00 Teller and Service Equipment
   11 17 13 Teller Equipment Systems
   11 17 16 Automatic Banking Systems
   11 17 23 Money Handling Equipment
   11 17 33 Money Cart Pass-Through
   11 17 36 Package Transfer Units
11 18 00 Security Equipment
   11 18 13 Deal Drawers
   11 18 16 Gun Ports
   11 18 23 Valuable Material Storage
11 19 00 Detention Equipment
   11 19 13 Detention Pass-Through Doors
   11 19 16 Detention Gun Lockers

11 20 00 COMMERCIAL EQUIPMENT

11 21 00 Mercantile and Service Equipment
   11 21 13 Cash Registers and Checking Equipment
   11 21 23 Vending Equipment
11 21 23.13 Vending Machines
11 21 33 Checkroom Equipment
11 21 43 Weighing and Wrapping Equipment
11 21 53 Barber and Beauty Shop Equipment

11 22 00 Refrigerated Display Equipment

11 23 00 Commercial Laundry and Dry Cleaning Equipment
11 23 13 Dry Cleaning Equipment
11 23 16 Drying and Conditioning Equipment
11 23 19 Finishing Equipment
11 23 23 Commercial Ironing Equipment
11 23 26 Commercial Washers and Extractors
11 23 33 Coin-Operated Laundry Equipment
11 23 43 Hanging Garment Conveyors

11 24 00 Maintenance Equipment
11 24 13 Floor and Wall Cleaning Equipment
11 24 16 Housekeeping Carts
11 24 19 Vacuum Cleaning Systems
11 24 23 Window Washing Systems

11 25 00 Hospitality Equipment
11 25 13 Registration Equipment

11 26 00 Unit Kitchens
11 26 13 Metal Unit Kitchens
11 26 16 Wood Unit Kitchens
11 26 19 Plastic-Laminate-Clad Unit Kitchens

11 27 00 Photographic Processing Equipment
11 27 13 Darkroom Processing Equipment
11 27 16 Film Transfer Cabinets

11 28 00 Office Equipment
11 28 13 Computers
11 28 16 Printers
11 28 19 Self-Contained Facsimile Machines
11 28 23 Copiers

11 29 00 Postal, Packaging, and Shipping Equipment
11 29 23 Packaging Equipment
11 29 33 Shipping Equipment
11 29 55 Postal Equipment

11 30 00 RESIDENTIAL EQUIPMENT
11 31 00 Residential Appliances
11 31 13 Residential Kitchen Appliances
11 31 23 Residential Laundry Appliances

11 33 00 Retractable Stairs

11 40 00 FOODSERVICE EQUIPMENT
11 41 00 Food Storage Equipment
11 41 13 Refrigerated Food Storage Cases
11 41 23 Walk-In Coolers
11 41 26 Walk-In Freezers

11 42 00 Food Preparation Equipment
11 43 00 Food Delivery Carts and Conveyors
11 43 13 Food Delivery Carts
11 43 16 Food Delivery Conveyors

11 44 00 Food Cooking Equipment
11 44 13 Commercial Ranges
11 44 16 Commercial Ovens

11 46 00 Food Dispensing Equipment
11 46 13 Bar Equipment
11 46 16 Service Line Equipment
11 46 19 Soda Fountain Equipment

11 47 00 Ice Machines

11 48 00 Cleaning and Disposal Equipment
11 48 13 Commercial Dishwashers

11 50 00 EDUCATIONAL AND SCIENTIFIC EQUIPMENT

11 51 00 Library Equipment
11 51 13 Automated Book Storage and Retrieval Systems
11 51 16 Book Depositories
11 51 19 Book Theft Protection Equipment
11 51 23 Library Stack Systems
11 51 23.13 Metal Library Shelving

11 52 00 Audio-Visual Equipment
11 52 13 Projection Screens
11 52 13.13 Fixed Projection Screens
11 52 13.16 Portable Projection Screens
11 52 13.19 Rear Projection Screens
11 52 16 Projectors
11 52 16.13 Movie Projectors
11 52 16.16 Slide Projectors
11 52 16.19 Overhead Projectors
11 52 16.23 Opaque Projectors
11 52 16.26 Video Projectors
11 52 19 Players and Recorders

11 53 00 Laboratory Equipment
11 53 13 Laboratory Fume Hoods
11 53 13.13 Recirculating Laboratory Fume Hoods
11 53 16 Laboratory Incubators
11 53 19 Laboratory Sterilizers
11 53 23 Laboratory Refrigerators
11 53 33 Emergency Safety Appliances
11 53 43 Service Fittings and Accessories
11 53 53 Biological Safety Cabinets

11 55 00 Planetarium Equipment
11 55 13 Planetarium Projectors
11 55 16 Planetarium Pendulums

11 56 00 Observatory Equipment
11 56 13 Telescopes
11 56 16 Telescope Mounts
11 56 19 Telescope Drive Mechanisms
11 56 23 Telescope Domes

11 57 00 Vocational Shop Equipment

11 59 00 Exhibit Equipment
11 60 00  ENTERTAINMENT EQUIPMENT
11 61 00  Theater and Stage Equipment
  11 61 13  Acoustical Shells
  11 61 23  Folding and Portable Stages
  11 61 33  Rigging Systems and Controls
  11 61 43  Stage Curtains
11 62 00  Musical Equipment
  11 62 13  Bells
  11 62 16  Carillons
  11 62 19  Organs

11 65 00  ATHLETIC AND RECREATIONAL EQUIPMENT
11 66 00  Athletic Equipment
  11 66 13  Exercise Equipment
  11 66 23  Gymnasium Equipment
    11 66 23.13  Basketball Equipment
    11 66 23.23  Volleyball Equipment
    11 66 23.33  Interior Tennis Equipment
    11 66 23.43  Interior Track and Field Equipment
    11 66 23.53  Wall Padding
    11 66 23.56  Mat Storage
  11 66 43  Interior Scoreboards
  11 66 53  Gymnasium Dividers
    11 66 53.13  Batting/Golf Cages
11 67 00  Recreational Equipment
  11 67 13  Bowling Alley Equipment
  11 67 23  Shooting Range Equipment
  11 67 33  Climbing Walls
  11 67 43  Table Games Equipment
    11 67 43.13  Pool Tables
    11 67 43.23  Ping-Pong Tables
  11 67 53  Game Room Equipment
    11 67 53.13  Video Games
    11 67 53.23  Pinball Machines
11 68 00  Play Field Equipment and Structures
  11 68 13  Playground Equipment
  11 68 16  Play Structures
  11 68 23  Exterior Court Athletic Equipment
    11 68 23.13  Exterior Basketball Equipment
    11 68 23.23  Exterior Volleyball Equipment
    11 68 23.33  Tennis Equipment
  11 68 33  Athletic Field Equipment
    11 68 33.13  Football Field Equipment
    11 68 33.23  Soccer and Field Hockey Equipment
    11 68 33.33  Baseball Field Equipment
    11 68 33.43  Track and Field Equipment
  11 68 43  Exterior Scoreboards

11 70 00  HEALTHCARE EQUIPMENT
11 71 00  Medical Sterilizing Equipment
11 72 00  Examination and Treatment Equipment
  11 72 13  Examination Equipment
| 11 72 53 | Treatment Equipment |
| 11 73 00 | Patient Care Equipment |
| 11 74 00 | Dental Equipment |
| 11 75 00 | Optical Equipment |
| 11 76 00 | Operating Room Equipment |
| 11 77 00 | Radiology Equipment |
| 11 78 00 | Mortuary Equipment |
| 11 78 13 | Mortuary Refrigerators |
| 11 78 16 | Crematorium Equipment |
| 11 78 19 | Mortuary Lifts |
| 11 79 00 | Therapy Equipment |

11 80 00 COLLECTION AND DISPOSAL EQUIPMENT

| 11 82 00 | Solid Waste Handling Equipment |
| 11 82 13 | Solid Waste Bins |
| 11 82 19 | Packaged Incinerators |
| 11 82 23 | Recycling Equipment |
| 11 82 26 | Waste Compactors and Destructors |
| 11 82 29 | Composting Equipment |

11 90 00 OTHER EQUIPMENT

| 11 91 00 | Religious Equipment |
| 11 91 13 | Baptisteries |
| 11 92 00 | Agricultural Equipment |
| 11 92 13 | Milkers |
| 11 92 16 | Stock Feeders |
| 11 92 19 | Stock Waterers |
| 11 92 23 | Agricultural Waste Clean-Up Equipment |
| 11 93 00 | Horticultural Equipment |
| 11 93 13 | Hydroponic Growing Systems |
| 11 93 16 | Seeders |
| 11 93 19 | Transplanters |
| 11 93 23 | Potting Machines |
| 11 93 26 | Flat Fillers |
| 11 93 29 | Bagger |
| 11 93 33 | Soil Mixers |
DIVISION 12 – FURNISHINGS

12 00 00  FURNISHINGS
  12 01 00  Operation and Maintenance of Furnishings
    12 01 10  Operation and Maintenance of Art
    12 01 20  Operation and Maintenance of Window Treatments
    12 01 30  Operation and Maintenance of Casework
    12 01 40  Operation and Maintenance of Furnishings and Accessories
    12 01 50  Operation and Maintenance of Furniture
    12 01 60  Operation and Maintenance of Multiple Seating
    12 01 90  Operation and Maintenance of Other Furnishings
  12 05 00  Common Work Results for Furnishings
    12 05 13  Fabrics
  12 06 00  Schedules for Furnishings
    12 06 10  Schedules for Art
    12 06 20  Schedules for Window Treatments
    12 06 20.13  Window Treatment Schedule
    12 06 30  Schedules for Casework
    12 06 30.13  Manufactured Casework Schedule
    12 06 40  Schedules for Furnishings and Accessories
    12 06 40.13  Furnishings Schedule
    12 06 50  Schedules for Furniture
    12 06 60  Schedules for Multiple Seating
    12 06 90  Schedules for Other Furnishings
  12 08 00  Commissioning of Furnishings

12 10 00  ART
  12 11 00  Murals
    12 11 13  Photo Murals
    12 11 16  Sculptured Brick Panels
    12 11 23  Brick Murals
    12 11 26  Ceramic Tile Murals
    12 11 33  Trompe l’oeil
  12 12 00  Wall Decorations
    12 12 13  Commissioned Paintings
    12 12 16  Framed Paintings
    12 12 19  Framed Prints
    12 12 23  Tapestries
    12 12 26  Wall Hangings
  12 14 00  Sculptures
    12 14 13  Carved Sculpture
    12 14 16  Cast Sculpture
    12 14 19  Constructed Sculpture
    12 14 23  Relief Art
  12 17 00  Art Glass
    12 17 13  Etched Glass
    12 17 16  Stained Glass
  12 19 00  Religious Art
12 20 00  WINDOW TREATMENTS

12 21 00  Window Blinds
   12 21 13  Horizontal Louver Blinds
      12 21 13.13  Metal Horizontal Louver Blinds
      12 21 13.23  Wood Horizontal Louver Blinds
      12 21 13.33  Plastic Horizontal Louver Blinds
   12 21 16  Vertical Louver Blinds
      12 21 16.13  Metal Vertical Louver Blinds
      12 21 16.23  Wood Vertical Louver Blinds
      12 21 16.33  Plastic Vertical Louver Blinds
   12 21 23  Roll-Down Blinds
   12 21 26  Black-Out Blinds

12 22 00  Curtains and Drapes
   12 22 13  Draperies
   12 22 16  Drapery Track and Accessories

12 23 00  Interior Shutters

12 24 00  Window Shades
   12 24 13  Roller Window Shades
   12 24 16  Pleated Window Shades

12 25 00  Window Treatment Operating Hardware
   12 25 13  Motorized Drapery Rods

12 30 00  CASEWORK

12 31 00  Manufactured Metal Casework
   12 31 16  Manufactured Metal Sandwich Panel Casework

12 32 00  Manufactured Wood Casework
   12 32 13  Manufactured Wood-Veneer-Faced Casework
   12 32 16  Manufactured Plastic-Laminate-Clad Casework

12 34 00  Manufactured Plastic Casework
   12 34 16  Manufactured Solid-Plastic Casework

12 35 00  Specialty Casework
   12 35 17  Bank Casework
   12 35 25  Hospitality Casework
   12 35 30  Residential Casework
      12 35 30.13  Kitchen Casework
      12 35 30.23  Bathroom Casework
      12 35 30.43  Dormitory Casework
   12 35 33  Utility Room Casework
   12 35 50  Educational/Library Casework
      12 35 50.13  Educational Casework
      12 35 50.53  Library Casework
      12 35 50.56  Built-In Study Carrels
   12 35 53  Laboratory Casework
      12 35 53.13  Metal Laboratory Casework
      12 35 53.16  Plastic-Laminate-Clad Laboratory Casework
      12 35 53.19  Wood Laboratory Casework
      12 35 53.23  Solid-Plastic Laboratory Casework
   12 35 59  Display Casework
   12 35 70  Healthcare Casework
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   12 48 13  Entrance Floor Mats and Frames
   12 48 13.13  Entrance Floor Mats
   12 48 13.16  Entrance Floor Mat Frames
   12 48 16  Entrance Floor Grilles
   12 48 19  Entrance Floor Gratings
   12 48 23  Entrance Floor Grids
   12 48 26  Entrance Tile
   12 48 43  Floor Mats
   12 48 43.13  Chair Mats
   12 48 53  Rugs
   12 48 53.13  Runners
   12 48 53.16  Oriental Rugs

12 50 00  Furniture
12 50 00  Office Furniture
   12 51 00  Case Goods
   12 51 16  Metal Case Goods
   12 51 16.13  Wood Case Goods
   12 51 16.16  Plastic-Laminate-Clad Case Goods
   12 51 19  Filing Cabinets
   12 51 19.13  Lateral Filing Cabinets
   12 51 19.16  Vertical Filing Cabinets
   12 51 83  Custom Office Furniture

12 52 00  Seating
   12 52 13  Chairs
   12 52 19  Upholstered Seating
   12 52 23  Office Seating
   12 52 70  Healthcare Seating
   12 52 83  Custom Seating

12 53 00  Retail Furniture
   12 53 83  Custom Retail Furniture

12 54 00  Hospitality Furniture
   12 54 13  Hotel and Motel Furniture
   12 54 16  Restaurant Furniture
   12 54 83  Custom Hospitality Furniture

12 55 00  Detention Furniture
   12 55 13  Detention Bunks
   12 55 16  Detention Desks
   12 55 19  Detention Stools
   12 55 23  Detention Tables
   12 55 26  Detention Safety Clothes Hooks
   12 55 83  Custom Detention Furniture

12 56 00  Institutional Furniture
   12 56 33  Classroom Furniture
   12 56 39  Lecterns
   12 56 43  Dormitory Furniture
   12 56 51  Library Furniture
   12 56 51.13  Book Shelves
   12 56 51.16  Study Carrels
   12 56 51.19  Index Card File Cabinets
   12 56 52  Audio-Visual Furniture
12 56 53 Laboratory Furniture
12 56 70 Healthcare Furniture
12 56 83 Custom Institutional Furniture

12 57 00 Industrial Furniture
12 57 13 Welding Benches
12 57 16 Welding Screens
12 57 83 Custom Industrial Furniture

12 58 00 Residential Furniture
12 58 13 Couches and Loveseats
  12 58 13.13 Futons
12 58 16 Residential Chairs
  12 58 16.13 Reclining Chairs
12 58 19 Dining Tables and Chairs
12 58 23 Coffee Tables
12 58 26 Entertainment Centers
12 58 29 Beds
  12 58 29.13 Daybeds
12 58 33 Dressers
  12 58 33.13 Armoires
12 58 36 Nightstands
12 58 83 Custom Residential Furniture

12 59 00 Systems Furniture
12 59 13 Panel-Hung Component System Furniture
12 59 16 Free-Standing Component System Furniture
12 59 19 Beam System Furniture
12 59 23 Desk System Furniture
12 59 83 Custom Systems Furniture

12 60 00 Multiple Seating

12 61 00 Fixed Audience Seating
12 61 13 Upholstered Audience Seating
12 61 16 Molded-Plastic Audience Seating

12 62 00 Portable Audience Seating
12 62 13 Folding Chairs
12 62 16 Interlocking Chairs
12 62 19 Stacking Chairs

12 63 00 Stadium and Arena Seating
12 63 13 Stadium and Arena Bench Seating
12 63 23 Stadium and Arena Seats

12 64 00 Booths and Tables

12 65 00 Multiple-Use Fixed Seating

12 66 00 Telescoping Stands
12 66 13 Telescoping Bleachers
12 66 23 Telescoping Chair Platforms

12 67 00 Pews and Benches
12 67 13 Pews
12 67 23 Benches

12 68 00 Seat and Table Assemblies
12 68 13 Pedestal Tablet Arm Chairs

12 70 00 Unassigned
12 80 00  Unassigned

12 90 00  OTHER FURNISHINGS

12 92 00  Interior Planters and Artificial Plants
  12 92 13  Interior Artificial Plants
  12 92 33  Interior Planters
  12 92 43  Interior Landscaping Accessories

12 93 00  Site Furnishings
  12 93 13  Bicycle Racks
  12 93 23  Trash and Litter Receptors
  12 93 33  Manufactured Planters
  12 93 43  Site Seating and Tables
    12 93 43.13  Site Seating
    12 93 43.53  Site Tables
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13 00 00 SPECIAL CONSTRUCTION
   13 01 00 Operation and Maintenance of Special Construction
      13 01 10 Operation and Maintenance of Special Facility Components
      13 01 11 Operation and Maintenance of Swimming Pools
      13 01 12 Operation and Maintenance of Fountains
      13 01 13 Operation and Maintenance of Aquariums
      13 01 14 Operation and Maintenance of Amusement Park Structures and Equipment
      13 01 18 Operation and Maintenance of Ice Rinks
      13 01 20 Operation and Maintenance of Special Purpose Rooms
      13 01 21 Operation and Maintenance of Controlled Environment Rooms
      13 01 23 Operation and Maintenance of Planetariums
      13 01 30 Operation and Maintenance of Special Structures
      13 01 40 Operation and Maintenance of Integrated Construction
      13 01 49 Operation and Maintenance of Radiation Protection
      13 01 50 Operation and Maintenance of Special Instrumentation
      13 01 51 Operation and Maintenance of Stress Instrumentation
      13 01 52 Operation and Maintenance of Seismic Instrumentation
      13 01 53 Operation and Maintenance of Meteorological Instrumentation
   13 05 00 Common Work Results for Special Construction
   13 06 00 Schedules for Special Construction
      13 06 10 Schedules for Special Facility Components
      13 06 20 Schedules for Special Purpose Rooms
      13 06 30 Schedules for Special Structures
      13 06 40 Schedules for Integrated Construction
      13 06 50 Schedules for Special Instrumentation
   13 08 00 Commissioning of Special Construction
      13 08 10 Commissioning of Special Facility Components
      13 08 11 Commissioning of Swimming Pools
      13 08 12 Commissioning of Fountains
      13 08 13 Commissioning of Aquariums
      13 08 14 Commissioning of Amusement Park Structures and Equipment
      13 08 18 Commissioning of Ice Rinks
      13 08 20 Commissioning of Special Purpose Rooms
      13 08 21 Commissioning of Controlled Environment Rooms
      13 08 23 Commissioning of Planetariums
      13 08 30 Commissioning of Special Structures
      13 08 40 Commissioning of Integrated Construction
      13 08 50 Commissioning of Special Instrumentation
   13 10 00 SPECIAL FACILITY COMPONENTS
    13 11 00 Swimming Pools
      13 11 13 Below-Grade Swimming Pools
      13 11 23 On-Grade Swimming Pools
      13 11 33 Elevated Swimming Pools
      13 11 43 Recirculating Gutter Systems
      13 11 46 Swimming Pool Accessories
13 11 49 Swimming Pool Cleaning Equipment
13 11 53 Movable Pool Bulkheads
13 11 56 Movable Pool Floors

13 12 00 Fountains
13 12 13 Exterior Fountains
13 12 23 Interior Fountains

13 13 00 Aquariums

13 14 00 Amusement Park Structures and Equipment
13 14 13 Water Slides
13 14 16 Wave Generating Equipment
13 14 23 Amusement Park Rides

13 17 00 Tubs and Pools
13 17 13 Hot Tubs
13 17 23 Therapeutic Pools
13 17 33 Whirlpool Tubs

13 18 00 Ice Rinks
13 18 13 Ice Rink Floor Systems
13 18 16 Ice Rink Dasher Boards

13 19 00 Kennels and Animal Shelters
13 19 13 Kennel Enclosures and Gates
13 19 16 Kennel Feeding Devices

13 20 00 SPECIAL PURPOSE ROOMS
13 21 00 Controlled Environment Rooms
13 21 13 Clean Rooms
13 21 16 Hyperbaric Rooms
13 21 23 Insulated Rooms
13 21 26 Cold Storage Rooms
13 21 29 Constant Temperature Rooms
13 21 48 Sound-Conditioned Rooms

13 22 00 Office Shelters and Booths

13 23 00 Planetariums

13 24 00 Special Activity Rooms
13 24 16 Saunas
13 24 26 Steam Baths
13 24 66 Athletic Rooms

13 26 00 Fabricated Rooms

13 27 00 Vaults
13 27 16 Modular Fire Vaults
13 27 53 Security Vaults
13 27 53.13 Modular Concrete Security Vaults
13 27 53.16 Modular Metal-Clad Laminated Security Vaults

13 28 00 Athletic and Recreational Special Construction
13 28 13 Indoor Soccer Boards
13 28 16 Safety Netting
13 28 19 Arena Football Boards
13 28 26 Floor Sockets
13 28 33 Athletic and Recreational Court Walls
13 28 66 Demountable Athletic Surfaces
13 30 00  SPECIAL STRUCTURES

13 31 00  Fabric Structures
13 31 13  Air-Supported Fabric Structures
13 31 13.13  Single-Walled Air-Supported Structures
13 31 13.16  Multiple-Walled Air-Supported Structures
13 31 23  Tensioned Fabric Structures
13 31 33  Framed Fabric Structures

13 32 00  Space Frames
13 32 13  Metal Space Frames
13 32 23  Wood Space Frames

13 33 00  Geodesic Structures
13 33 13  Geodesic Domes

13 34 00  Fabricated Engineered Structures
13 34 13  Glazed Structures
13 34 13.13  Greenhouses
13 34 13.16  Solariums
13 34 13.19  Swimming Pool Enclosures
13 34 13.23  Sunrooms
13 34 13.26  Conservatories
13 34 16  Grandstands and Bleachers
13 34 16.13  Grandstands
13 34 16.53  Bleachers
13 34 19  Metal Building Systems
13 34 23  Fabricated Structures
13 34 23.13  Portable and Mobile Buildings
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13 34 23.23  Fabricated Substation Control Rooms
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13 36 13.13  Steel Towers
13 36 23  Wood Towers

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13 42 33  Apartment Unit Modules
13 42 43  Dormitory Unit Modules
13 42 63  Detention Cell Modules
13 42 63.13  Precast-Concrete Detention Cell Modules
13 42 63.16  Steel Detention Cell Modules

13 44 00  Modular Mezzanines

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13 48 23  Fabricated Sound and Vibration Control Assemblies
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13 52 00 Seismic Instrumentation
13 53 00 Meteorological Instrumentation
   13 53 13 Solar Instrumentation
   13 53 23 Wind Instrumentation

13 60 00 Unassigned
13 70 00 Unassigned
13 80 00 Unassigned
13 90 00 Unassigned
DIVISION 14 – CONVEYING EQUIPMENT

14 00 00 CONVEYING EQUIPMENT
14 01 00 Operation and Maintenance of Conveying Equipment
  14 01 10 Operation and Maintenance of Dumbwaiters
    14 01 10.71 Dumbwaiter Rehabilitation
  14 01 20 Operation and Maintenance of Elevators
    14 01 20.71 Elevator Rehabilitation
  14 01 30 Operation and Maintenance of Escalators and Moving Walks
    14 01 30.71 Escalators and Moving Walks Rehabilitation
  14 01 40 Operation and Maintenance of Lifts
    14 01 40.71 Lifts Rehabilitation
  14 01 70 Operation and Maintenance of Turntables
  14 01 80 Operation and Maintenance of Scaffolding
  14 01 90 Operation and Maintenance of Other Conveying Equipment

14 05 00 Common Work Results for Conveying Equipment
14 06 00 Schedules for Conveying Equipment
  14 06 10 Schedules for Dumbwaiters
  14 06 20 Schedules for Elevators
    14 06 20.13 Elevator Equipment Schedule
  14 06 30 Schedules for Escalators and Moving Walks
  14 06 40 Schedules for Lifts
    14 06 40.13 Lift Schedule
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14 08 00 Commissioning of Conveying Equipment
  14 08 10 Commissioning of Dumbwaiters
  14 08 20 Commissioning of Elevators
  14 08 30 Commissioning of Escalators and Moving Walks
  14 08 40 Commissioning of Lifts
  14 08 70 Commissioning of Turntables
  14 08 80 Commissioning of Scaffolding

14 10 00 DUMBWAITERS
  14 11 00 Manual Dumbwaiters
  14 12 00 Electric Dumbwaiters
  14 14 00 Hydraulic Dumbwaiters

14 20 00 ELEVATORS
  14 21 00 Electric Traction Elevators
    14 21 13 Electric Traction Freight Elevators
    14 21 23 Electric Traction Passenger Elevators
    14 21 33 Electric Traction Residential Elevators
    14 21 43 Electric Traction Service Elevators
  14 24 00 Hydraulic Elevators
    14 24 13 Hydraulic Freight Elevators
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14 24 33  Hydraulic Residential Elevators
14 24 43  Hydraulic Service Elevators
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   14 27 13  Custom Elevator Cab Finishes
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   14 28 13  Elevator Doors
   14 28 16  Elevator Controls
   14 28 19  Elevator Equipment
      14 28 19.13  Elevator Safety Equipment
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14 33 00  Moving Ramps
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   14 33 16  Powered Ramps
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14 41 00  People Lifts
   14 41 13  Counterbalanced People Lifts
   14 41 16  Endless-Belt People Lifts
14 42 00  Wheelchair Lifts
   14 42 13  Inclined Wheelchair Lifts
   14 42 16  Vertical Wheelchair Lifts
14 43 00  Platform Lifts
   14 43 13  Orchestra Lifts
   14 43 16  Stage Lifts
14 44 00  Sidewalk Lifts
14 45 00  Vehicle Lifts
14 50 00  Unassigned
14 60 00  Unassigned
14 70 00  TURNTABLES
14 71 00  Industrial Turntables
   14 71 11  Vehicle Turntables
14 72 00  Hospitality Turntables
   14 72 25  Restaurant Turntables
14 73 00  Exhibit Turntables
   14 73 59  Display Turntables
14 74 00  Entertainment Turntables
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14 81 00  Suspended Scaffolding
   14 81 13  Beam Scaffolding
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14 82 00  Rope Climbers
14 82 13 Manual Rope Climbers
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14 83 00 Elevating Platforms
  14 83 13 Telescoping Platform Lifts
    14 83 13.13 Electric and Battery Telescoping Platform Lifts
    14 83 13.16 Pneumatic Telescoping Platform Lifts
  14 83 16 Scissor Lift Platforms
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14 84 00 Powered Scaffolding
  14 84 13 Window Washing Scaffolding
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    14 91 13 Coal Chutes
    14 91 23 Escape Chutes
    14 91 33 Laundry and Linen Chutes
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21 00 00  FIRE SUPPRESSION
   21 01 00  Operation and Maintenance of Fire Suppression
     21 01 10  Operation and Maintenance of Water-Based Fire-Suppression Systems
     21 01 20  Operation and Maintenance of Fire-Extinguishing Systems
     21 01 30  Operation and Maintenance of Fire-Suppression Equipment
   21 05 00  Common Work Results for Fire Suppression
     21 05 13  Common Motor Requirements for Fire-Suppression Equipment
     21 05 16  Expansion Fittings and Loops for Fire-Suppression Piping
     21 05 19  Meters and Gages for Fire-Suppression Systems
     21 05 23  General-Duty Valves for Water-Based Fire-Suppression Piping
     21 05 29  Hangers and Supports for Fire-Suppression Piping and Equipment
     21 05 33  Heat Tracing for Fire-Suppression Piping
     21 05 48  Vibration and Seismic Controls for Fire-Suppression Piping and Equipment
     21 05 53  Identification for Fire-Suppression Piping and Equipment
   21 06 00  Schedules for Fire Suppression
     21 06 10  Schedules for Water-Based Fire-Suppression Systems
     21 06 20  Schedules for Fire-Extinguishing Systems
     21 06 30  Schedules for Fire-Suppression Equipment
   21 07 00  Fire Suppression Systems Insulation
     21 07 16  Fire-Suppression Equipment Insulation
     21 07 19  Fire-Suppression Piping Insulation
   21 08 00  Commissioning of Fire Suppression
   21 09 00  Instrumentation and Control for Fire-Suppression Systems

21 10 00  WATER-BASED FIRE-SUPPRESSION SYSTEMS
   21 11 00  Facility Fire-Suppression Water-Service Piping
     21 11 16  Facility Fire Hydrants
     21 11 19  Fire-Department Connections
   21 12 00  Fire-Suppression Standpipes
     21 12 13  Fire-Suppression Hoses and Nozzles
     21 12 16  Fire-Suppression Hose Reels
     21 12 19  Fire-Suppression Hose Racks
     21 12 23  Fire-Suppression Hose Valves
     21 12 26  Fire-Suppression Valve and Hose Cabinets
   21 13 00  Fire-Suppression Sprinkler Systems
     21 13 13  Wet-Pipe Sprinkler Systems
     21 13 16  Dry-Pipe Sprinkler Systems
     21 13 19  Preaction Sprinkler Systems
     21 13 23  Combined Dry-Pipe and Preaction Sprinkler Systems
     21 13 26  Deluge Fire-Suppression Sprinkler Systems
     21 13 29  Water Spray Fixed Systems
     21 13 36  Antifreeze Sprinkler Systems
     21 13 39  Foam-Water Systems

21 20 00  FIRE-EXTINGUISHING SYSTEMS
   21 21 00  Carbon-Dioxide Fire-Extinguishing Systems
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<td><strong>Storage Tanks for Fire-Suppression Water</strong></td>
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DIVISION 22 – PLUMBING

22 00 00  PLUMBING
  22 01 00  Operation and Maintenance of Plumbing
    22 01 10  Operation and Maintenance of Plumbing Piping and Pumps
    22 01 30  Operation and Maintenance of Plumbing Equipment
    22 01 40  Operation and Maintenance of Plumbing Fixtures
    22 01 50  Operation and Maintenance of Pool and Fountain Plumbing Systems
    22 01 60  Operation and Maintenance of Laboratory and Healthcare Systems
  22 05 00  Common Work Results for Plumbing
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    22 05 19  Meters and Gages for Plumbing Piping
    22 05 23  General-Duty Valves for Plumbing Piping
    22 05 29  Hangers and Supports for Plumbing Piping and Equipment
    22 05 33  Heat Tracing for Plumbing Piping
    22 05 48  Vibration and Seismic Controls for Plumbing Piping and Equipment
    22 05 53  Identification for Plumbing Piping and Equipment
    22 05 73  Facility Drainage Manholes
    22 05 76  Facility Drainage Piping Cleanouts
  22 06 00  Schedules for Plumbing
    22 06 10  Schedules for Plumbing Piping and Pumps
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    22 06 12  Schedules for Facility Potable Water Storage
    22 06 15  Schedules for General Service Compressed-Air Equipment
    22 06 30  Schedules for Plumbing Equipment
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    22 06 40  Schedules for Plumbing Fixtures
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    22 06 50  Schedules for Pool and Fountain Plumbing Systems
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    22 07 16  Plumbing Equipment Insulation
    22 07 19  Plumbing Piping Insulation
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  22 09 00  Instrumentation and Control for Plumbing

22 10 00  PLUMBING PIPING AND PUMPS
  22 11 00  Facility Water Distribution
    22 11 13  Facility Water Distribution Piping
    22 11 16  Domestic Water Piping
    22 11 19  Domestic Water Piping Specialties
    22 11 23  Domestic Water Pumps
22 11 23.13 Domestic-Water Packaged Booster Pumps
22 11 23.23 Close-Coupled, In-Line, Sealless Centrifugal Domestic-Water Pumps
22 11 23.26 Close-Coupled, Horizontally Mounted, In-Line Centrifugal Domestic-Water Pumps
22 11 23.29 Close-Coupled, Vertically Mounted, In-Line Centrifugal Domestic-Water Pumps
22 11 23.33 Separately Coupled, In-Line Centrifugal Domestic-Water Pumps
22 11 23.36 Separately Coupled, Horizontally Mounted, In-Line Centrifugal Domestic-Water Pumps

22 12 00 Facility Potable-Water Storage Tanks
22 12 13 Facility Roof-Mounted, Potable-Water Storage Tanks
22 12 16 Facility Elevated, Potable-Water Storage Tanks
22 12 19 Facility Ground-Mounted, Potable-Water Storage Tanks
22 12 23 Facility Indoor Potable-Water Storage Tanks
22 12 23.13 Facility Steel, Indoor Potable-Water Storage Pressure Tanks
22 12 23.16 Facility Steel, Indoor Potable-Water Storage Non-Pressure Tanks
22 12 23.23 Facility Plastic, Indoor Potable-Water Storage Pressure Tanks
22 12 23.26 Facility Plastic, Indoor Potable-Water Storage Non-Pressure Tanks

22 13 00 Facility Sanitary Sewerage
22 13 13 Facility Sanitary Sewers
22 13 16 Sanitary Waste and Vent Piping
22 13 19 Sanitary Waste Piping Specialties
22 13 19.13 Sanitary Drains
22 13 19.23 Fats, Oils, and Grease Disposal Systems
22 13 19.26 Grease Removal Devices
22 13 19.33 Backwater Valves
22 13 19.36 Air-Admittance Valves
22 13 23 Sanitary Waste Interceptors
22 13 26 Sanitary Waste Separators
22 13 29 Sanitary Sewerage Pumps
22 13 29.13 Wet-Pit-Mounted, Vertical Sewerage Pumps
22 13 29.16 Submersible Sewerage Pumps
22 13 29.23 Sewerage Pump Reverse-Flow Assemblies
22 13 29.33 Sewerage Pump Basins and Pits
22 13 33 Packaged, Submersible Sewerage Pump Units
22 13 36 Packaged, Wastewater Pump Units
22 13 43 Facility Packaged Sewage Pumping Stations
22 13 43.13 Facility Dry-Well Packaged Sewage Pumping Stations
22 13 43.16 Facility Wet-Well Packaged Sewage Pumping Stations
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22 14 00 Facility Storm Drainage
22 14 13 Facility Storm Drainage Piping
22 14 16 Rainwater Leaders
22 14 19 Sump Pump Discharge Piping
22 14 23 Storm Drainage Piping Specialties
22 14 26 Facility Storm Drains
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22 14 26.16 Facility Area Drains
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22 14 29.16 Submersible Sump Pumps
22 14 29.19 Sump-Pump Basins and Pits
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22 14 36 Packaged, Submersible, Drainage Pump Units

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22 15 16 General Service Compressed-Air Valves
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   22 15 19.13 General Service Packaged Reciprocating Air Compressors
   22 15 19.16 General Service Packaged Liquid-Ring Air Compressors
   22 15 19.19 General Service Packaged Rotary-Screw Air Compressors
   22 15 19.23 General Service Packaged Sliding-Vane Air Compressors

22 20 00 Unassigned

22 30 00 PLUMBING EQUIPMENT
   22 31 00 Domestic Water Softeners
      22 31 13 Residential Domestic Water Softeners
      22 31 16 Commercial Domestic Water Softeners
   22 32 00 Domestic Water Filtration Equipment
      22 32 13 Domestic-Water Bag-Type Filters
      22 32 16 Domestic-Water Freestanding Cartridge Filters
      22 32 19 Domestic-Water Off-Floor Cartridge Filters
      22 32 23 Domestic-Water Carbon Filters
      22 32 26 Domestic-Water Sand Filters
         22 32 26.13 Domestic-Water Circulating Sand Filters
         22 32 26.16 Domestic-Water Multimedia Sand Filters
         22 32 26.19 Domestic-Water Greensand Filters
   22 33 00 Electric Domestic Water Heaters
      22 33 13 Instantaneous Electric Domestic Water Heaters
         22 33 13.13 Flow-Control, Instantaneous Electric Domestic Water Heaters
         22 33 13.16 Thermostat-Control, Instantaneous Electric Domestic Water Heaters
      22 33 30 Residential, Electric Domestic Water Heaters
         22 33 30.13 Residential, Small-Capacity Electric Domestic Water Heaters
         22 33 30.16 Residential, Storage Electric Domestic Water Heaters
         22 33 30.23 Residential, Collector-to-Tank, Solar-Electric Domestic Water Heaters
         22 33 30.26 Residential, Collector-to-Tank, Heat-Exchanger-Coil, Solar-Electric Domestic Water Heaters
      22 33 33 Light-Commercial Electric Domestic Water Heaters
      22 33 36 Commercial Domestic Water Electric Booster Heaters
         22 33 36.13 Commercial Domestic Water Electric Booster Heaters
         22 33 36.16 Commercial Storage Electric Domestic Water Heaters
   22 34 00 Fuel-Fired Domestic Water Heaters
      22 34 13 Instantaneous, Tankless, Gas Domestic Water Heaters
      22 34 30 Residential Gas Domestic Water Heaters
         22 34 30.13 Residential, Atmospheric, Gas Domestic Water Heaters
         22 34 30.16 Residential, Direct-Vent, Gas Domestic Water Heaters
         22 34 30.19 Residential, Power-Vent, Gas Domestic Water Heaters
      22 34 36 Commercial Gas Domestic Water Heaters
         22 34 36.13 Commercial, Atmospheric, Gas Domestic Water Heaters
         22 34 36.16 Commercial, Power-Burner, Gas Domestic Water Heaters
         22 34 36.19 Commercial, Power-Vent, Gas Domestic Water Heaters
         22 34 36.23 Commercial, High-Efficiency, Gas Domestic Water Heaters
         22 34 36.26 Commercial, Coil-Type, Finned-Tube, Gas Domestic Water Heaters
         22 34 36.29 Commercial, Grid-Type, Finned-Tube, Gas Domestic Water Heaters
      22 34 46 Oil-Fired Domestic Water Heaters
         22 34 46.13 Large-Capacity, Oil-Fired Domestic Water Heaters
      22 34 56 Dual-Fuel-Fired Domestic Water Heaters
   22 35 00 Domestic Water Heat Exchangers
### 22 35 13 Instantaneous Domestic Water Heat Exchangers
- 22 35 13.16 Domestic-Water-in-Coil, Instantaneous Domestic Water Heat Exchangers

### 22 35 23 Circulating, Domestic Water Heat Exchangers
- 22 35 23.13 Circulating, Compact Domestic Water Heat Exchangers
- 22 35 23.16 Circulating, Storage Domestic Water Heat Exchangers

### 22 35 29 Noncirculating, Domestic Water Heat Exchangers
- 22 35 29.13 Noncirculating, Compact Domestic Water Heat Exchangers
- 22 35 29.16 Noncirculating, Storage Domestic Water Heat Exchangers

### 22 35 36 Domestic Water Brazed-Plate Heat Exchangers

### 22 40 00 PLUMBING FIXTURES

#### 22 41 00 Residential Plumbing Fixtures
- 22 41 13 Residential Water Closets, Urinals, and Bidets
- 22 41 16 Residential Lavatories and Sinks
- 22 41 19 Residential Bathtubs
- 22 41 23 Residential Shower Receptors and Basins
- 22 41 26 Residential Disposers
- 22 41 36 Residential Laundry Trays
- 22 41 39 Residential Faucets, Supplies, and Trim

#### 22 42 00 Commercial Plumbing Fixtures
- 22 42 13 Commercial Water Closets, Urinals, and Bidets
- 22 42 16 Commercial Lavatories and Sinks
- 22 42 19 Commercial Bathtubs
- 22 42 23 Commercial Shower Receptors and Basins
- 22 42 26 Commercial Disposers
- 22 42 29 Shampoo Bowls
- 22 42 33 Wash Fountains
- 22 42 36 Commercial Laundry Trays
- 22 42 39 Commercial Faucets, Supplies, and Trim
- 22 42 43 Flushometers

#### 22 43 00 Healthcare Plumbing Fixtures
- 22 43 13 Healthcare Water Closets
- 22 43 16 Healthcare Sinks
- 22 43 19 Healthcare Bathtubs and Showers
- 22 43 23 Healthcare Shower Receptors and Basins
- 22 43 39 Healthcare Faucets
- 22 43 43 Healthcare Plumbing Fixture Flushometers

#### 22 45 00 Emergency Plumbing Fixtures
- 22 45 13 Emergency Showers
- 22 45 16 Eyewash Equipment
- 22 45 19 Self-Contained Eyewash Equipment
- 22 45 23 Personal Eyewash Equipment
- 22 45 26 Eye/Face Wash Equipment
- 22 45 29 Hand-Held Emergency Drench Hoses
- 22 45 33 Combination Emergency Fixture Units
- 22 45 36 Emergency Fixture Water-Tempering Equipment

#### 22 46 00 Security Plumbing Fixtures
22 46 13  Security Water Closets and Urinals
22 46 16  Security Lavatories and Sinks
22 46 39  Security Faucets, Supplies, and Trim
22 46 43  Security Plumbing Fixture Flushometers
22 46 53  Security Plumbing Fixture Supports

22 47 00  Drinking Fountains and Water Coolers
22 47 13  Drinking Fountains
22 47 16  Pressure Water Coolers
22 47 19  Water-Station Water Coolers
22 47 23  Remote Water Coolers

22 50 00  POOL AND FOUNTAIN PLUMBING SYSTEMS
22 51 00  Swimming Pool Plumbing Systems
22 51 13  Swimming Pool Piping
22 51 16  Swimming Pool Pumps
22 51 19  Swimming Pool Water Treatment Equipment
22 51 23  Swimming Pool Equipment Controls

22 52 00  Fountain Plumbing Systems
22 52 13  Fountain Piping
22 52 16  Fountain Pumps
22 52 19  Fountain Water Treatment Equipment
22 52 23  Fountain Equipment Controls

22 60 00  GAS AND VACUUM SYSTEMS FOR LABORATORY AND HEALTHCARE FACILITIES
22 61 00  Compressed-Air Systems for Laboratory and Healthcare Facilities
22 61 13  Compressed-Air Piping for Laboratory and Healthcare Facilities
  22 61 13.53 Laboratory Compressed-Air Piping
  22 61 13.70 Healthcare Compressed-Air Piping
  22 61 13.74 Dental Compressed-Air Piping
22 61 19  Compressed-Air Equipment for Laboratory and Healthcare Facilities
  22 61 19.53 Laboratory Compressed-Air Equipment
  22 61 19.70 Healthcare Compressed-Air Equipment
  22 61 19.74 Dental Compressed-Air Equipment

22 62 00  Vacuum Systems for Laboratory and Healthcare Facilities
22 62 13  Vacuum Piping for Laboratory and Healthcare Facilities
  22 62 13.53 Laboratory Vacuum Piping
  22 62 13.70 Healthcare, Surgical Vacuum Piping
  22 62 13.74 Dental Vacuum Piping
22 62 19  Vacuum Equipment for Laboratory and Healthcare Facilities
  22 62 19.53 Laboratory Vacuum Equipment
  22 62 19.70 Healthcare Vacuum Equipment
  22 62 19.74 Dental Vacuum and Evacuation Equipment
22 62 23  Waste Anesthesia-Gas Piping

22 63 00  Gas Systems for Laboratory and Healthcare Facilities
22 63 13  Gas Piping for Laboratory and Healthcare Facilities
  22 63 13.53 Laboratory Gas Piping
  22 63 13.70 Healthcare Gas Piping
22 63 19  Gas Storage Tanks for Laboratory and Healthcare Facilities
  22 63 19.53 Laboratory Gas Storage Tanks
  22 63 19.70 Healthcare Gas Storage Tanks

22 66 00  Chemical-Waste Systems for Laboratory and Healthcare Facilities
22 66 53  Laboratory Chemical-Waste and Vent Piping
22 66 70 Healthcare Chemical-Waste and Vent Piping
22 66 83 Chemical-Waste Tanks
  22 66 83.13 Chemical-Waste Dilution Tanks
  22 66 83.16 Chemical-Waste Neutralization Tanks
22 67 00 Processed Water Systems for Laboratory and Healthcare Facilities
  22 67 13 Processed Water Piping for Laboratory and Healthcare Facilities
    22 67 13.13 Distilled-Water Piping
    22 67 13.16 Reverse-Osmosis Water Piping
    22 67 13.19 Deionized-Water Piping
  22 67 19 Processed Water Equipment for Laboratory and Healthcare Facilities
    22 67 19.13 Distilled-Water Equipment
    22 67 19.16 Reverse-Osmosis Water Equipment
    22 67 19.19 Deionized-Water Equipment

22 70 00 Unassigned
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22 90 00 Unassigned
DIVISION 23 – HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

23 00 00 Heating, Ventilating, and Air-Conditioning (HVAC)

23 01 00 Operation and Maintenance of HVAC Systems

- 23 01 10 Operation and Maintenance of Facility Fuel Systems
- 23 01 20 Operation and Maintenance of HVAC Piping and Pumps
- 23 01 30 Operation and Maintenance of HVAC Air Distribution
  - 23 01 30.51 HVAC Air Duct Cleaning
- 23 01 50 Operation and Maintenance of Central Heating Equipment
- 23 01 60 Operation and Maintenance of Central Cooling Equipment
  - 23 01 60.71 Refrigerant Recovery/Recycling
- 23 01 80 Operation and Maintenance of Decentralized HVAC Equipment
- 23 01 90 Diagnostic Systems for HVAC

23 05 00 Common Work Results for HVAC

- 23 05 13 Common Motor Requirements for HVAC Equipment
- 23 05 16 Expansion Fittings and Loops for HVAC Piping
- 23 05 19 Meters and Gages for HVAC Piping
- 23 05 23 General-Duty Valves for HVAC Piping
- 23 05 29 Hangers and Supports for HVAC Piping and Equipment
- 23 05 33 Heat Tracing for HVAC Piping
- 23 05 48 Vibration and Seismic Controls for HVAC Piping and Equipment
- 23 05 53 Identification for HVAC Piping and Equipment
- 23 05 63 Anti-Microbial Coatings for HVAC Ducts and Equipment
- 23 05 66 Anti-Microbial Ultraviolet Emitters for HVAC Ducts and Equipment
- 23 05 93 Testing, Adjusting, and Balancing for HVAC

23 06 00 Schedules for HVAC

- 23 06 10 Schedules for Facility Fuel Service Systems
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  25 31 00 Integrated Automation Instrumentation and Terminal Devices for Facility Equipment
  25 32 00 Integrated Automation Instrumentation and Terminal Devices for Conveying Equipment
  25 33 00 Integrated Automation Instrumentation and Terminal Devices for Fire-Suppression Systems
  25 34 00 Integrated Automation Instrumentation and Terminal Devices for Plumbing
  25 35 00 Integrated Automation Instrumentation and Terminal Devices for HVAC
    25 35 13 Integrated Automation Actuators and Operators
    25 35 16 Integrated Automation Sensors and Transmitters
    25 35 19 Integrated Automation Control Valves
    25 35 23 Integrated Automation Control Dampers
    25 35 26 Integrated Automation Compressed Air Supply
  25 36 00 Integrated Automation Instrumentation and Terminal Devices for Electrical Systems
    25 36 13 Integrated Automation Power Meters
    25 36 16 Integrated Automation KW Transducers
    25 36 19 Integrated Automation Current Sensors
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  25 37 00 Integrated Automation Instrumentation and Terminal Devices for Communications Systems
  25 38 00 Integrated Automation Instrumentation and Terminal Devices for Electronic Safety and Security Systems

25 40 00 Unassigned

25 50 00 INTEGRATED AUTOMATION FACILITY CONTROLS
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  25 55 00 Integrated Automation Control of HVAC
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  26 01 20  Operation and Maintenance of Low-Voltage Electrical Distribution
  26 01 26  Maintenance Testing of Electrical Systems
  26 01 30  Operation and Maintenance of Facility Electrical Power Generating and Storing Equipment
  26 01 40  Operation and Maintenance of Electrical and Cathodic Protection Systems
  26 01 50  Operation and Maintenance of Lighting
    26 01 50.51  Luminaire Relamping
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26 05 00  Common Work Results for Electrical
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    26 05 13.13  Medium-Voltage Open Conductors
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  26 05 33  Raceway and Boxes for Electrical Systems
  26 05 36  Cable Trays for Electrical Systems
  26 05 39  Underfloor Raceways for Electrical Systems
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  26 05 46  Utility Poles for Electrical Systems
  26 05 48  Vibration and Seismic Controls for Electrical Systems
  26 05 53  Identification for Electrical Systems
  26 05 73  Overcurrent Protective Device Coordination Study

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26 09 43.16 Addressable Fixture Lighting Control
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26 11 13 Primary Unit Substations
26 11 16 Secondary Unit Substations

26 12 00 Medium-Voltage Transformers
26 12 13 Liquid-Filled, Medium-Voltage Transformers
26 12 16 Dry-Type, Medium-Voltage Transformers
26 12 19 Pad-Mounted, Liquid-Filled, Medium-Voltage Transformers

26 13 00 Medium-Voltage Switchgear
26 13 13 Medium-Voltage Circuit Breaker Switchgear
26 13 16 Medium-Voltage Fusible Interrupter Switchgear
26 13 19 Medium-Voltage Vacuum Interrupter Switchgear

26 18 00 Medium-Voltage Circuit Protection Devices
26 18 13 Medium-Voltage Cutouts
26 18 16 Medium-Voltage Fuses
26 18 19 Medium-Voltage Lightning Arresters
26 18 23 Medium-Voltage Surge Arresters
26 18 26 Medium-Voltage Reclosers
26 18 29 Medium-Voltage Enclosed Bus
26 18 33 Medium-Voltage Enclosed Fuse Cutouts
26 18 36 Medium-Voltage Enclosed Fuses
26 18 39 Medium-Voltage Motor Controllers

26 20 00 LOW-VOLTAGE ELECTRICAL DISTRIBUTION

26 21 00 Low-Voltage Overhead Electrical Power Systems

26 22 00 Low-Voltage Transformers
26 22 13 Low-Voltage Distribution Transformers
26 22 16 Low-Voltage Buck-Boost Transformers
26 22 19 Control and Signal Transformers

26 23 00 Low-Voltage Switchgear
26 23 13 Paralleling Low-Voltage Switchgear

26 24 00 Switchboards and Panelboards
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26 24 16 Panelboards
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26 25 00 Enclosed Bus Assemblies

26 26 00 Power Distribution Units

26 27 00 Low-Voltage Distribution Equipment
26 27 13 Electricity Metering
26 27 16 Electrical Cabinets and Enclosures
26 27 19 Multi-Outlet Assemblies
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26 28 00 Low-Voltage Circuit Protective Devices
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26 29 00 Low-Voltage Controllers
26 29 13 Enclosed Controllers
   26 29 13.13 Across-the-Line Motor Controllers
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26 32 00 Packaged Generator Assemblies
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      26 32 13.13 Diesel-Engine-Driven Generator Sets
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   26 32 16 Steam-Turbine Generators
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   26 32 29 Rotary Converters
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   26 33 33 Static Power Converters
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26 35 00 Power Filters and Conditioners
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   26 35 16 Chokes and Inductors
   26 35 23 Electromagnetic-Interference Filters
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26 36 00 Transfer Switches
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26 40 00 Electrical and Cathodic Protection
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27 01 00  Operation and Maintenance of Communications Systems
  27 01 10  Operation and Maintenance of Structured Cabling and Enclosures
  27 01 20  Operation and Maintenance of Data Communications
  27 01 30  Operation and Maintenance of Voice Communications
  27 01 40  Operation and Maintenance of Audio-Video Communications
  27 01 50  Operation and Maintenance of Distributed Communications and Monitoring

27 05 00  Common Work Results for Communications
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    27 05.13.23  T1 Services
    27 05.13.33  DSL Services
    27 05.13.43  Cable Services
    27 05.13.53  Satellite Services
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  27 05 28  Pathways for Communications Systems
    27 05.28.29  Hangers and Supports for Communications Systems
    27 05.28.33  Conduits and Backboxes for Communications Systems
    27 05.28.36  Cable Trays for Communications Systems
    27 05.28.39  Surface Raceways for Communications Systems
  27 05 43  Underground Ducts and Raceways for Communications Systems
  27 05 46  Utility Poles for Communications Systems
  27 05 48  Vibration and Seismic Controls for Communications Systems
  27 05 53  Identification for Communications Systems

27 06 00  Schedules for Communications
  27 06 10  Schedules for Structured Cabling and Enclosures
  27 06 20  Schedules for Data Communications
  27 06 30  Schedules for Voice Communications
  27 06 40  Schedules for Audio-Video Communications
  27 06 50  Schedules for Distributed Communications and Monitoring

27 08 00  Commissioning of Communications

27 10 00  STRUCTURED CABLEING

27 11 00  Communications Equipment Room Fittings
  27 11 13  Communications Entrance Protection
  27 11 16  Communications Cabinets, Racks, Frames and Enclosures
  27 11 19  Communications Termination Blocks and Patch Panels
  27 11 23  Communications Cable Management and Ladder Rack
  27 11 26  Communications Rack Mounted Power Protection and Power Strips

27 13 00  Communications Backbone Cabling
  27 13 13  Communications Copper Backbone Cabling
    27 13.13.13  Communications Copper Cable Splicing and Terminations
  27 13 23  Communications Optical Fiber Backbone Cabling
    27 13.23.13  Communications Optical Fiber Splicing and Terminations
  27 13 33  Communications Coaxial Backbone Cabling
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  27 13 43  Communications Services Cabling
27 13 43.13 Dialtone Services Cabling
27 13 43.23 T1 Services Cabling
27 13 43.33 DSL Services Cabling
27 13 43.43 Cable Services Cabling
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27 15 00 Communications Horizontal Cabling
27 15 00.16 Voice Communications Horizontal Cabling
27 15 00.19 Data Communications Horizontal Cabling
27 15 00.23 Audio-Video Communications Horizontal Cabling
27 15 00.39 Patient Monitoring and Telemetry Communications Horizontal Cabling
27 15 00.43 Nurse Call and Intercom Communications Horizontal Cabling
27 15 00.46 Paging Communications Horizontal Cabling
27 15 00.49 Intermediate Frequency/Radio Frequency Communications Horizontal Cabling
27 15 00.53 Antennas Communications Horizontal Cabling
27 15 13 Communications Copper Horizontal Cabling
27 15 16 Communications Optical Fiber Horizontal Cabling
27 15 19 Communications Coaxial Horizontal Cabling
27 15 23 Communications Faceplates and Connectors

27 15 00 Communications Connecting Cords, Devices and Adapters
27 15 13 Communications Custom Cable Assemblies
27 15 16 Communications Media Converters, Adapters, and Transceivers
27 15 19 Communications Patch Cords, Station Cords, and Cross Connect Wire

27 20 00 DATA COMMUNICATIONS

27 21 00 Data Communications Network Equipment
27 21 13 Data Communications Firewalls
27 21 16 Data Communications Routers, CSU/DSU, Multiplexers, Codec’s, and Modems
27 21 26 Data Communications Network Management
27 21 29 Data Communications Switches and Hubs
27 21 33 Data Communications Wireless Access Points

27 22 00 Data Communications Hardware
27 22 13 Data Communications Mainframes
27 22 16 Data Communications Storage and Backup
27 22 19 Data Communications Servers
27 22 23 Data Communications Desktops
27 22 26 Data Communications Laptops
27 22 29 Data Communications Handhelds

27 24 00 Data Communications Peripheral Data Equipment
27 24 13 Printers
27 24 16 Scanners
27 24 23 Audio-Video Devices
27 24 26 Virtual Reality Equipment
27 24 29 Disaster Recovery Equipment

27 25 00 Data Communications Software
27 25 13 Virus Protection Software
27 25 16 Application Suites
27 25 19 Email Software
27 25 23 Graphics/Multimedia Software
27 25 26 Customer Relationship Management Software
27 25 29 Operating System Software
27 25 33 Database Software
Virtual Private Network Software
Internet Conferencing Software

**Data Communications Programming and Integration Services**
Web Development
Database Development
Application Development
Network Integration Requirements
Data Communications Integration Requirements

**Voice Communications**
Voice Communications Switching and Routing Equipment
PBX/ Key Systems
Internet Protocol Voice Switches

Voice Communications Telephone Sets, Facsimiles and Modems
Telephone Sets
Wireless Transceivers
Elevator Telephones
Ring-Down Emergency Telephones
Facsimiles and Modems
TTY Equipment

Voice Communications Messaging
Voice Mail and Auto Attendant
Interactive Voice Response
Facsimile Servers

Call Accounting
Toll Fraud Equipment and Software
Telemangement Software

Call Management
Digital Voice Announcers
Automatic Call Distributors
Call Status and Management Displays
Dedicated 911 Systems

**Audio-Video Communications**
Architecturally Integrated Audio-Video Equipment
Integrated Audio-Video Systems and Equipment
Integrated Audio-Video Systems and Equipment for Restaurants and Bars
Integrated Audio-Video Systems and Equipment for Conference Rooms
Integrated Audio-Video Systems and Equipment for Board Rooms
Integrated Audio-Video Systems and Equipment for Classrooms
Integrated Audio-Video Systems and Equipment for Theaters
Integrated Audio-Video Systems and Equipment for Auditoriums
Integrated Audio-Video Systems and Equipment for Stadiums and Arenas
Portable Audio-Video Equipment
Audio-Video Accessories

Electronic Digital Systems
Point of Sale Systems
Transportation Information Display Systems
Public Information Systems
27 50 00  DISTRIBUTED COMMUNICATIONS AND MONITORING SYSTEMS
   27 51 00  Distributed Audio-Video Communications Systems
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      27 51 13.13  Overhead Paging Systems
      27 51 16  Public Address and Mass Notification Systems
      27 51 19  Sound Masking Systems
      27 51 23  Intercommunications and Program Systems
      27 51 23.20  Commercial Intercommunications and Program Systems
      27 51 23.30  Residential Intercommunications and Program Systems
      27 51 23.50  Educational Intercommunications and Program Systems
      27 51 23.63  Detention Intercommunications and Program Systems
      27 51 23.70  Healthcare Intercommunications and Program Systems
   27 52 00  Healthcare Communications and Monitoring Systems
      27 52 13  Patient Monitoring and Telemetry Systems
      27 52 16  Telemedicine Systems
      27 52 19  Healthcare Imaging Systems
      27 52 23  Nurse Call/Code Blue Systems
   27 53 00  Distributed Systems
      27 53 13  Clock Systems
      27 53 16  Infrared and Radio Frequency Tracking Systems
      27 53 19  Internal Cellular, Paging, and Antenna Systems
27 60 00  Unassigned
27 70 00  Unassigned
27 80 00  Unassigned
27 90 00  Unassigned
DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

28 00 00 ELECTRONIC SAFETY AND SECURITY

28 01 00 Operation and Maintenance of Electronic Safety and Security
28 01 10 Operation and Maintenance of Electronic Access Control and Intrusion Detection
28 01 10.51 Maintenance and Administration of Electronic Access Control and Intrusion Detection
28 01 10.71 Revisions and Upgrades of Electronic Access Control and Intrusion Detection
28 01 20 Operation and Maintenance of Electronic Surveillance
28 01 30 Operation and Maintenance of Electronic Detection and Alarm
28 01 30.51 Maintenance and Administration of Electronic Detection and Alarm
28 01 30.71 Revisions and Upgrades of Electronic Detection and Alarm
28 01 40 Operation and Maintenance of Electronic Monitoring and Control
28 01 40.51 Maintenance and Administration of Electronic Monitoring and Control
28 01 40.71 Revisions and Upgrades of Electronic Monitoring and Control

28 05 00 Common Work Results for Electronic Safety and Security
28 05 13 Conductors and Cables for Electronic Safety and Security
28 05 13.13 CCTV Communications Conductors and Cables
28 05 13.16 Access Control Communications Conductors and Cables
28 05 13.19 Intrusion Detection Communications Conductors and Cables
28 05 13.23 Fire Alarm Communications Conductors and Cables
28 05 26 Grounding and Bonding for Electronic Safety and Security
28 05 28 Pathways for Electronic Safety and Security
28 05 28.29 Hangers and Supports for Electronic Safety and Security
28 05 28.33 Conduits and Backboxes for Electronic Safety and Security
28 05 28.36 Cable Trays for Electronic Safety and Security
28 05 28.39 Surface Raceways for Electronic Safety and Security
28 05 48 Vibration and Seismic Controls for Electronic Safety and Security
28 05 53 Identification for Electronic Safety and Security

28 06 00 Schedules for Electronic Safety and Security
28 06 10 Schedules for Electronic Access Control and Intrusion Detection
28 06 20 Schedules for Electronic Surveillance
28 06 30 Schedules for Electronic Detection and Alarm
28 06 40 Schedules for Electronic Monitoring and Control

28 08 00 Commissioning of Electronic Safety and Security

28 10 00 ELECTRONIC ACCESS CONTROL AND INTRUSION DETECTION

28 13 00 Access Control
28 13 13 Access Control Global Applications
28 13 16 Access Control Systems and Database Management
28 13 19 Access Control Systems Infrastructure
28 13 26 Access Control Remote Devices
28 13 33 Access Control Interfaces
28 13 33.16 Access Control Interfaces to Access Control Hardware
28 13 33.26 Access Control Interfaces to Intrusion Detection
28 13 33.33 Access Control Interfaces to Video Surveillance
28 13 33.36 Access Control Interfaces to Fire Alarm
28 13 43 Access Control Identification Management Systems
28 13 53 Security Access Detection
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34 54 26.13 Passenger Coin Fare Collection Equipment
34 54 26.16 Passenger Electronic Fare Collection Equipment
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34 60 00 Unassigned

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35 60 00 Unassigned

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35 80 00 Unassigned

35 90 00 Unassigned
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  - **40 41 23.13** Process Equipment Electrical Resistance Heat Tracing
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**40 50 00** Unassigned

**40 60 00** Unassigned

**40 70 00** Unassigned

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40 91 13.23 Gas Analysis Process Measurement Devices
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40 92 13.23 Pressure-Relief Primary Control Valves
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   40 93 13.16  Electro-Hydraulic Analog Controllers
   40 93 13.19  Electro-Pneumatic Analog Controllers
   40 93 13.23  Hydraulic Analog Controllers
   40 93 13.26  Pneumatic Analog Controllers
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   40 94 13.13  Host Digital Process Control Computers
   40 94 13.16  Personal Digital Process Control Computers
   40 94 13.19  Personal Digital Assistant Digital Process Control Computers
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   40 95 13.13  Local Process Control Panels and Hardware
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40 96 40  Process Control Software Reports
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  41 01 10 Operation and Maintenance of Bulk Material Processing Equipment
  41 01 20 Operation and Maintenance of Piece Material Handling Equipment
  41 01 30 Operation and Maintenance of Manufacturing Equipment
  41 01 40 Operation and Maintenance of Container Processing and Packaging
  41 01 50 Operation and Maintenance of Material Storage
  41 01 60 Operation and Maintenance of Mobile Plant Equipment

41 06 00 Schedules for Material Processing and Handling Equipment
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  41 06 20 Schedules for Piece Material Handling Equipment
  41 06 30 Schedules for Manufacturing Equipment
  41 06 40 Schedules for Container Processing and Packaging
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  41 06 60 Schedules for Mobile Plant Equipment

41 08 00 Commissioning of Material Processing and Handling Equipment
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  41 08 20 Commissioning of Piece Material Handling Equipment
  41 08 30 Commissioning of Manufacturing Equipment
  41 08 40 Commissioning of Container Processing and Packaging
  41 08 50 Commissioning of Material Storage
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41 11 00 Bulk Material Sizing Equipment
  41 11 13 Bulk Material Agglomerators
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  41 11 33 Bulk Material Grinders
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  41 11 39 Bulk Material Lump Breakers
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41 12 00 Bulk Material Conveying Equipment
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41 12 13.33 Reciprocating Bulk Material Conveyors
41 12 13.36 Screw Bulk Material Conveyors
41 12 13.39 Stacking and Reclalm Bulk Material Conveyors
41 12 13.43 Trough Bulk Material Conveyors
41 12 13.46 Tube Bulk Material Conveyors
41 12 13.49 Vibratory Bulk Material Conveyors
41 12 13.53 Weigh Belt Bulk Material Conveyors
41 12 16 Bucket Elevators
41 12 19 Pneumatic Conveyors
41 12 19.13 Dense Phase Pneumatic Conveyors
41 12 19.16 Dilute Phase Pneumatic Conveyors

**41 13 00 Bulk Material Feeders**
41 13 13 Bin Activators/Live Bin Bottoms
41 13 23 Feeders
41 13 23.13 Airlock Bulk Material Feeders
41 13 23.16 Apron Bulk Material Feeders
41 13 23.19 Rotary-Valve Bulk Material Feeders
41 13 23.23 Screw Bulk Material Feeders
41 13 23.26 Vibratory Bulk Material Feeders
41 13 23.29 Volumetric Bulk Material Feeders
41 13 23.33 Weigh Bulk Material Feeders

**41 14 00 Batching Equipment**
41 14 13 Bag-Handling Batching Equipment
41 14 16 Batch Cars/Transports
41 14 19 Batch Hoppers
41 14 23 Bulk Bag-Handling Batching Equipment
41 14 26 Blenders
41 14 29 Drum-Handling Batching Equipment
41 14 33 Mixers
41 14 36 Weigh Scales

**41 20 00 PIECE MATERIAL HANDLING EQUIPMENT**
**41 21 00 Conveyors**
41 21 13 Automatic Guided Vehicle Systems
41 21 23 Piece Material Conveyors
41 21 23.13 Belt Piece Material Conveyors
41 21 23.16 Container Piece Material Conveyors
41 21 23.19 Drag-Chain Piece Material Conveyors
41 21 23.23 Hopper Piece Material Conveyors
41 21 23.26 Monorail Piece Material Conveyors
41 21 23.29 Power and Free Piece Material Conveyors
41 21 23.33 Reciprocating Piece Material Conveyors
41 21 23.36 Roller Piece Material Conveyors
41 21 23.39 Vibratory Piece Material Conveyors
41 21 23.43 Walking-Beam Piece Material Conveyors
41 21 23.46 Weigh-Belt Piece Material Conveyors
41 21 23.53 Postal Conveyors
41 21 26 Piece Material Diverter Gates
41 21 29 Piece Material Gravity Slides
41 21 33 Piece Material Transfer Cars
41 21 36 Piece Material Turntables
41 21 39 Piece Material Feeders
  41 21 39.13 Piece Material Vibratory Feeders

41 22 00 Cranes and Hoists
41 22 13 Cranes
  41 22 13.13 Bridge Cranes
  41 22 13.16 Gantry Cranes
  41 22 13.19 Jib Cranes
  41 22 13.23 Mobile Cranes
  41 22 13.26 Tower Cranes
  41 22 13.29 Specialty Cranes

41 22 23 Hoists
  41 22 23.13 Fixed Hoists
  41 22 23.16 Portable Hoists
  41 22 23.19 Monorail Hoists
  41 22 23.23 Specialty Hoists

41 22 33 Derricks

41 23 00 Lifting Devices
41 23 13 Clamps
41 23 16 Grabs
41 23 19 Hooks
41 23 23 Lifts
41 23 26 Slings
41 23 29 Spreader Bars/Beams
41 23 33 Tongs

41 24 00 Specialty Material Handling Equipment
41 24 13 Aeration Devices
41 24 16 Bin Vibrators
41 24 19 Dehydrators
41 24 23 Hydrators
41 24 26 Hydraulic Power Systems
41 24 29 Lubrication Systems
41 24 33 Magnetic Separators
41 24 36 Metal Detectors
41 24 39 Railcar Movers
41 24 43 Turnheads/Distributors
41 24 46 Sorting Machines
  41 24 46.13 Postal Sorting Machines

41 30 00 MANUFACTURING EQUIPMENT
41 31 00 Manufacturing Lines and Equipment
41 31 13 Manufacturing Lines
41 31 13.13 Assembly Lines
41 31 13.16 Casting Lines
41 31 13.19 Coating Lines
41 31 13.23 Converting Lines
41 31 13.26 Disassembly Lines
41 31 13.29 Extrusion Lines
41 31 13.33 Machining Lines
41 31 13.36 Molding Lines
41 31 13.39 Finishing/Painting Lines
41 31 13.43 Painting Lines
41 31 13.46 Pickling Lines
41 31 13.49 Plating Lines
41 31 13.53 Polishing Lines
41 31 13.56 Press Lines
41 31 13.59 Rolling/Calendaring Lines
41 31 13.63 Web Processing Lines
41 31 16 Pick and Place Systems
41 31 19 Manufacturing-Line Robots
41 31 23 Specialty Assembly Machines

41 32 00 Forming Equipment
41 32 13 Bending Equipment
41 32 16 Blow-Molding Equipment
41 32 19 Brake-Forming Equipment
41 32 23 Cold-Forming Equipment
41 32 26 Die-Casting Equipment
41 32 29 Drawing Equipment
41 32 33 Electroforming Equipment
41 32 36 Forging Equipment
41 32 39 Extruding Equipment
41 32 43 Metal-Spinning Equipment
41 32 46 Piercing Equipment
41 32 49 Powder Metal-Forming Equipment
41 32 53 Pressing Equipment
41 32 56 Roll-Forming Equipment
41 32 59 Shearing Equipment
41 32 63 Spinning Equipment
41 32 66 Stretching/Leveling Equipment
41 32 69 Swaging Equipment

41 33 00 Machining Equipment
41 33 13 Automatic Screw Machining Equipment
41 33 16 Boring Equipment
41 33 19 Broaching Equipment
41 33 23 Drilling Equipment
41 33 26 Electro-Discharge Machining Equipment
41 33 29 Grinding Equipment
41 33 33 Hobbing Equipment
41 33 36 Lapping Equipment
41 33 39 Lathe Equipment
41 33 43 Leveling Equipment
41 33 46 Machining Center Equipment
41 33 53 Milling Equipment
41 33 53.13 Horizontal Milling Equipment
41 33 53.16 Vertical Milling Equipment
41 33 60 Multi-Axis Machine Equipment
41 33 63 Planing Equipment
41 33 66 Reaming Equipment
41 33 69 Routing Equipment
41 33 73 Sawing Equipment
41 33 76 Shaping Equipment
41 33 79 Threading Equipment

41 34 00 Finishing Equipment
41 34 13 Anodizing Equipment
41 34 16 Barrel Tumbling Equipment
41 34 23 Coating Equipment
  41 34 23.13 Diffusion Coating Equipment
  41 34 23.16 Dipping Coating Equipment
  41 34 23.19 Film Coating Equipment
  41 34 23.23 Phosphatizing Coating Equipment
  41 34 23.26 Plasma Coating Equipment
  41 34 23.29 Hardface Welding Coating Equipment
  41 34 23.33 Spray Painting Booth
41 34 26 Deburring Equipment
41 34 36 Electroplating Equipment
41 34 46 Grinding Equipment
41 34 49 Honing Equipment
41 34 53 Lapping Equipment
41 34 56 Shot Peening Equipment
41 34 59 Superfinishing/Polishing Equipment

41 35 00 Dies and Molds
41 35 13 Dies
  41 35 13.13 Drawing Dies
  41 35 13.16 Extrusion Dies
  41 35 13.19 Press Dies
  41 35 13.23 Rotary Dies
  41 35 13.26 Rule Dies
41 35 33 Molds

41 36 00 Assembly and Testing Equipment
41 36 13 Applicators
  41 36 13.13 Adhesive Applicators
  41 36 13.16 Lubricant Applicators
  41 36 13.19 Sealer Applicators
41 36 16 Fixtures and Jigs
41 36 19 Joining Equipment
  41 36 19.13 Adhesive Joining Equipment
  41 36 19.16 Arc-Welding Equipment
  41 36 19.19 Brazing Equipment
  41 36 19.23 Resistance-Welding Equipment
  41 36 19.26 Riveting Equipment
  41 36 19.29 Sintering Equipment
  41 36 19.33 Soldering Equipment
41 36 23 Cutting Equipment
41 36 23.13 Cutting Torches
41 36 23.16 High-Pressure Water Cutting Equipment
41 36 23.19 Laser Cutting Equipment
41 36 23.23 Plasma Cutting Equipment

41 36 26 Process Tools
41 36 26.13 Air Process Tools
41 36 26.16 Electric Process Tools
41 36 26.19 Hydraulic Process Tools
41 36 26.23 Manual Process Tools

41 36 29 Manufacturing Measurement and Testing Equipment
41 36 29.13 Gages, Rules, and Blocks
41 36 29.16 Penetrant Measurement and Testing Equipment
41 36 29.19 Laser Measurement and Testing Equipment
41 36 29.23 Magnaflux Measurement and Testing Equipment
41 36 29.26 Optical Comparators
41 36 29.29 Profilometers
41 36 29.33 Radiograph Measurement and Testing Equipment
41 36 29.36 Surface Tables
41 36 29.39 Ultrasonic Measurement and Testing Equipment
41 36 29.43 Test Weigh Scales

41 40 00 CONTAINER PROCESSING AND PACKAGING

41 41 00 Container Filling and Sealing
41 41 13 Bulk Container Fillers/Packers
41 41 16 Container Cappers
41 41 19 Container Fillers
41 41 19.13 Bag Fillers
41 41 19.16 Box Fillers
41 41 19.19 Bottle Fillers
41 41 23 Container Sealers

41 42 00 Container Packing Equipment
41 42 13 Box Packing Equipment
41 42 13.13 Box Makers
41 42 13.16 Box Packers
41 42 16 Bulk Material Loaders
41 42 16.13 Container Bulk Material Loaders
41 42 16.23 Truck Bulk Material Loaders
41 42 16.26 Railcar Bulk Material Loaders
41 42 16.29 Ship Bulk Material Loaders
41 42 16.33 Barge Bulk Material Loaders
41 42 19 Carton Packers
41 42 23 Carton Sealers
41 42 26 Carton Shrink Wrappers
41 42 29 Carton Stackers

41 43 00 Shipping Packaging
41 43 13 Banding/Strapping Equipment
41 43 16 Barcode Equipment
41 43 16.13 Barcode Readers
41 43 16.16 Barcode Printers
41 43 19 Labeling Equipment
41 43 23 Pallet Stacking/Wrapping Equipment

41 50 00 MATERIAL STORAGE

41 51 00 Automatic Material Storage
41 51 13  Automatic Storage/Automatic Retrieval Systems

41 52 00  Bulk Material Storage
41 52 13  Bins and Hoppers
   41 52 13.13  Fixed Bins and Hoppers
   41 52 13.23  Portable Bins and Hoppers
   41 52 13.33  Bulk Material Containers
   41 52 13.43  Returnable Bins and Hoppers
   41 52 13.53  Throwaway Bins and Hoppers
41 52 16  Silos
   41 52 16.13  Concrete Silos
   41 52 16.16  Concrete Masonry Unit Silos
   41 52 16.19  Steel Silos
41 52 19  Material Storage Tanks
   41 52 19.13  Horizontal Material Storage Tanks
   41 52 19.23  Vertical Material Storage Tanks
   41 52 19.33  Portable Material Storage Tanks

41 53 00  Storage Equipment and Systems
41 53 13  Storage Cabinets
41 53 16  Container Storage Systems
41 53 19  Flat Files
41 53 23  Storage Racks
41 53 26  Mezzanine Storage Systems

41 60 00  MOBILE PLANT EQUIPMENT

41 61 00  Mobile Earth Moving Equipment
41 61 13  Backhoes
41 61 16  Bulldozers
41 61 19  Compactors
41 61 23  Excavators
41 61 26  Graders
41 61 29  Payloaders
41 61 33  Trenchers

41 62 00  Trucks
41 62 13  Cement Mixer Trucks
41 62 16  Dump Trucks
41 62 19  Flatbed Trucks
41 62 23  Forklift Trucks
41 62 26  Pickup Trucks
41 62 29  Tank Trucks

41 63 00  General Vehicles
41 63 13  Bicycles
41 63 16  Carts
41 63 19  Maintenance Vehicles
41 63 23  Utility Vehicles
41 63 26  Vans
41 63 29  Wagons

41 64 00  Rail Vehicles
41 64 13  Locomotives
   41 64 13.13  Diesel Locomotives
   41 64 13.23  Electric Locomotives
41 64 16  Mobile Railcar Movers

41 65 00  Mobile Support Equipment
41 65 13  Mobile Air Compressors
41 65 16  Mobile Generators
41 65 19  Mobile Welders

41 66 00  Miscellaneous Mobile Equipment
41 66 13  Mobile Boring and Drilling Rigs
41 66 16  Mobile Lifts and Cherrypickers
41 66 19  Mobile Paving Equipment
41 66 23  Mobile Sweepers/Vacuums

41 67 00  Plant Maintenance Equipment
41 67 13  Plant Lube Oil System
41 67 16  Plant Fall Protection Equipment
41 67 19  Plant Safety Equipment
41 67 23  Plant Maintenance Tools
41 67 26  Plant Maintenance Washing Equipment

41 70 00  Unassigned
41 80 00  Unassigned
41 90 00  Unassigned
DIVISION 42 – PROCESS HEATING, COOLING, AND DRYING EQUIPMENT

42 00 00 PROCESS HEATING, COOLING, AND DRYING EQUIPMENT
   42 01 00 Operation and Maintenance of Process Heating, Cooling, and Drying Equipment
      42 01 10 Operation and Maintenance of Process Heating Equipment
      42 01 20 Operation and Maintenance of Process Cooling Equipment
      42 01 30 Operation and Maintenance of Process Drying Equipment
   42 06 00 Schedules for Process Heating, Cooling, and Drying Equipment
      42 06 10 Schedules for Process Heating Equipment
      42 06 20 Schedules for Process Cooling Equipment
      42 06 30 Schedules for Process Drying Equipment
   42 08 00 Commissioning of Process Heating, Cooling, and Drying Equipment
      42 08 10 Commissioning of Heating Equipment
      42 08 20 Commissioning of Cooling Equipment
      42 08 30 Commissioning of Drying Equipment

42 10 00 PROCESS HEATING EQUIPMENT
   42 11 00 Process Boilers
      42 11 13 Low-Pressure Process Boilers
      42 11 16 Intermediate-Pressure Process Boilers
      42 11 19 High-Pressure Process Boilers
      42 11 23 Specialty Process Boilers
   42 12 00 Process Heaters
      42 12 13 Electric Process Heaters
      42 12 16 Fuel-Fired Process Heaters
      42 12 19 Thermoelectric Process Heaters
      42 12 23 Solar Process Heaters
      42 12 26 Specialty Process Heaters
   42 13 00 Industrial Heat Exchangers and Recuperators
      42 13 13 Industrial Gas-to-Gas Heat Exchangers
      42 13 16 Industrial Liquid-to-Gas/Gas-to-Liquid Heat Exchangers
      42 13 19 Industrial Liquid-to-Liquid Heat Exchangers
      42 13 23 Industrial Gas Radiation Heat Exchangers
      42 13 26 Industrial Solar Radiation Heat Exchangers
   42 14 00 Industrial Furnaces
      42 14 13 Annealing Furnaces
      42 14 16 Atmosphere Generators
      42 14 19 Industrial Baking Furnaces
      42 14 23 Industrial Brazing Furnaces
      42 14 26 Industrial Calcining Furnaces
      42 14 29 Industrial Heat-Treating Furnaces
      42 14 33 Industrial Melting Furnaces
         42 14 33.13 Ceramics and Glass Melting Furnaces
         42 14 33.16 Ferrous Melting Furnaces
         42 14 33.19 Non-Ferrous Melting Furnaces
      42 14 36 Primary Refining Furnaces
      42 14 43 Reactor Furnaces
      42 14 46 Industrial Reheat Furnaces
42 14 53  Industrial Sintering Furnaces
42 14 56  Industrial Vacuum Furnaces

42 15 00  Industrial Ovens
42 15 13  Industrial Drying Ovens
42 15 16  Industrial Curing Ovens
42 15 19  Industrial Specialty Ovens

42 20 00  PROCESS COOLING EQUIPMENT
42 21 00  Process Cooling Towers
42 21 13  Open-Circuit Process Cooling Towers
42 21 16  Closed-Circuit Process Cooling Towers

42 22 00  Process Chillers and Coolers
42 22 13  Centrifugal Process Chillers and Coolers
42 22 16  Reciprocating Process Chillers and Coolers
42 22 19  Refrigerant Process Chillers and Coolers
42 22 23  Rotary Process Chillers and Coolers
42 22 26  Thermoelectric Process Chillers and Coolers

42 23 00  Process Condensers and Evaporators
42 23 13  Process Condensers
42 23 16  Process Cooling Evaporators
42 23 19  Process Humidifiers

42 30 00  PROCESS DRYING EQUIPMENT
42 31 00  Gas Dryers and Dehumidifiers
42 31 13  Drying Evaporators
42 31 16  Desiccant Equipment
42 31 19  Regenerative Dryers
42 31 23  Refrigerant Dryers

42 32 00  Material Dryers
42 32 13  Centrifugal Material Dryers
42 32 16  Conveyor Material Dryers
42 32 19  Flash Material Dryers
42 32 23  Fluid-Bed Material Dryers
42 32 26  Material Roasters
42 32 29  Rotary-Kiln Material Dryers
42 32 33  Spray Material Dryers
42 32 36  Tower Material Dryers
42 32 39  Vacuum Material Dryers
42 32 43  Specialty Material Dryers

42 40 00  Unassigned
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42 70 00  Unassigned
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42 90 00  Unassigned
DIVISION 43 – PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT

43 00 00 PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT
   43 01 00 Operation and Maintenance of Process Gas and Liquid Handling, Purification, and Storage Equipment
      43 01 10 Operation and Maintenance of Gas Handling Equipment
      43 01 20 Operation and Maintenance of Liquid Handling Equipment
      43 01 30 Operation and Maintenance of Gas and Liquid Hi-Purification Equipment
      43 01 40 Operation and Maintenance of Gas and Liquid Storage
   43 06 00 Schedules for Process Gas and Liquid Handling, Purification, and Storage Equipment
      43 06 10 Schedules for Gas Handling Equipment
      43 06 20 Schedules for Liquid Handling Equipment
      43 06 30 Schedules for Gas and Liquid Hi-Purification Equipment
      43 06 40 Schedules for Gas and Liquid Storage
   43 08 00 Commissioning of Process Gas and Liquid Handling, Purification, and Storage Equipment
      43 08 10 Commissioning of Gas Handling Equipment
      43 08 20 Commissioning of Liquid Handling Equipment
      43 08 30 Commissioning of Gas and Liquid Purification Equipment
      43 08 40 Commissioning of Gas and Liquid Storage

43 10 00 GAS HANDLING EQUIPMENT
   43 11 00 Gas Fans, Blowers and Pumps
      43 11 13 Gas Handling Fans
         43 11 13.13 Axial Gas Handling Fans
         43 11 13.16 Centrifugal Gas Handling Fans
      43 11 23 Gas Handling Blowers
      43 11 26 Gas Handling Jet Pumps
      43 11 29 Gas Handling Vacuum Pumps
   43 12 00 Gas Compressors
      43 12 13 Centrifugal Gas Compressors
      43 12 16 Piston Gas Compressors
      43 12 19 Positive Displacement Gas Compressors
      43 12 23 Rotary-Screw Gas Compressors
      43 12 26 Vane Gas Compressors
   43 13 00 Gas Process Equipment
      43 13 13 Process Gas Blenders
      43 13 16 Process Gas Meters
      43 13 19 Process Gas Mixers
      43 13 23 Process Gas Pressure Regulators

43 20 00 LIQUID HANDLING EQUIPMENT
   43 21 00 Liquid Pumps
      43 21 13 Centrifugal Liquid Pumps
      43 21 16 Diaphragm Liquid Pumps
43 21 19 Dispensing Liquid Pumps
43 21 23 Drum Liquid Pumps
43 21 26 Gear Liquid Pumps
43 21 29 Metering Liquid Pumps
43 21 33 Piston/Plunger Liquid Pumps
43 21 36 Positive Displacement Liquid Pumps
43 21 39 Submersible Liquid Pumps
43 21 43 Sump Liquid Pumps
43 21 46 Vane Liquid Pumps

43 22 00 Liquid Process Equipment
43 22 13 Liquid Aeration Devices
43 22 16 Liquid Agitators
43 22 19 Liquid Blenders
43 22 23 Liquid Centrifuges
43 22 26 Liquid Deaerators
43 22 29 Drum Handling Liquid Process Equipment
43 22 33 Liquid Emulsifiers
43 22 36 Liquid Evaporators
43 22 39 Liquid Feeders
43 22 43 Liquid Filters
43 22 43.13 Cyclonic Liquid Filters
43 22 43.16 Media Liquid Filters
43 22 43.19 Press Liquid Filters
43 22 53 Liquid Process Meters
43 22 63 Liquid Separation Towers
43 22 66 Liquid Weigh Systems

43 30 00 GAS AND LIQUID PURIFICATION EQUIPMENT
43 31 00 Gas and Liquid Purification Filtration Equipment
43 31 13 Gas and Liquid Purification Filters
43 31 13.13 Activated Carbon-Gas and Liquid Purification Filters
43 31 13.16 Gas and Liquid Purification Filter Presses
43 31 13.19 High-Purity Cartridge Gas and Liquid Purification Filters
43 31 13.23 Membrane Diaphragm Gas and Liquid Purification Filters
43 31 13.26 Multimedia Gas and Liquid Purification Filters
43 31 13.29 Pretreatment Cartridge Gas and Liquid Purification Filters
43 31 13.33 Ultrafilter Units

43 32 00 Gas and Liquid Purification Process Equipment
43 32 13 Gas and Liquid Purification Process Beds
43 32 13.13 Anion-Gas and Liquid Purification Process Beds
43 32 13.16 Cation-Gas and Liquid Purification Process Beds
43 32 23 Gas and Liquid Purification Process Clarifier Systems
43 32 26 Gas and Liquid Purification Decarbonators
43 32 29 Electronic De-Ionization Purification Units
43 32 33 External Regeneration Systems
43 32 36 Mixed-Bed Ion-Exchange Vessels
43 32 39 Gas and Liquid Purification Mixed Beds
43 32 39.13 Externally Regenerable Gas and Liquid Purification Mixed Beds
43 32 39.16 In-Situ Regenerable Gas and Liquid Purification Mixed Beds
43 32 53 Packed-Bed Ion-Exchange Vessels
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<tr>
<td>43 32 56</td>
<td>Reverse-Osmosis Purification Units</td>
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<td>Ultraviolet Sterilizers</td>
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<td>Vacuum Degasifiers</td>
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<td>Chemical Feed Systems</td>
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<td>43 32 73</td>
<td>Ozonation Equipment</td>
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<td>Chlorination Equipment</td>
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43 40 00  **GAS AND LIQUID STORAGE**

43 41 00  **Gas and Liquid Storage Equipment**

43 41 13  **Gas and Liquid Pressure Vessels**

43 41 13.13  Ferrous Gas and Liquid Pressure Vessels
43 41 13.16  Nonferrous Gas and Liquid Pressure Vessels
43 41 13.19  Fiberglass Gas and Liquid Pressure Vessels

43 41 16  **Atmospheric Tanks and Vessels**

43 41 16.13  Horizontal Atmospheric Tanks and Vessels
43 41 16.16  Vertical Atmospheric Tanks and Vessels

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DIVISION 44 – POLLUTION CONTROL EQUIPMENT

44 00 00  POLLUTION CONTROL EQUIPMENT
  44 01 00  Operation and Maintenance of Pollution Control Equipment
    44 01 10  Operation and Maintenance of Air Pollution Control
    44 01 20  Operation and Maintenance of Noise Pollution Control
    44 01 40  Operation and Maintenance of Water Treatment Equipment
    44 01 50  Operation and Maintenance of Solid Waste Control
  44 06 00  Schedules for Pollution Control Equipment
    44 06 10  Schedules for Air Pollution Control
    44 06 20  Schedules for Noise Pollution Control
    44 06 40  Schedules for Water Treatment Equipment
    44 06 50  Schedules for Solid Waste Control
  44 08 00  Commissioning of Pollution Control Equipment
    44 08 10  Commissioning of Air Pollution Control
    44 08 20  Commissioning of Noise Pollution Control
    44 08 40  Commissioning Water Treatment Equipment
    44 08 50  Commissioning Solid Waste Control

44 10 00  AIR POLLUTION CONTROL
  44 11 00  Air Pollution Control Equipment
    44 11 13  Cyclonic Separators
    44 11 16  Industrial Dust Collectors
    44 11 19  Air Pollution Filters
    44 11 23  Fugitive Dust Control
    44 11 26  Air Pollution Control Precipitators
    44 11 29  Air Pollution Scrubbers
      44 11 29.13  Dry-Air Pollution Scrubbers
      44 11 29.16  Wet-Air Pollution Scrubbers
    44 11 33  Thermal Oxidizers
    44 11 36  Vacuum Extraction Systems

44 20 00  NOISE POLLUTION CONTROL
  44 21 00  Noise Pollution Control Equipment
    44 21 13  Noise Abatement Barriers
      44 21.13.13  Fixed Noise Abatement Barriers
      44 21.13.16  Flexible Noise Abatement Barriers
      44 21.13.19  Portable Noise Abatement Barriers
    44 21 23  Noise Pollution Silencers
    44 21 26  Frequency Cancellers

44 40 00  WATER TREATMENT EQUIPMENT
  44 41 00  Packaged Water Treatment
    44 41 13  Packaged Water Treatment Plants
      44 41.13.13  Chemical Packaged Water Treatment Plants
      44 41.13.16  Biological Packaged Water Treatment Plants
      44 41.13.19  Thermal Packaged Water Treatment Plants
  44 42 00  General Water Treatment Equipment
    44 42 13  Aeration Water Treatment Equipment
44 42 16  American Petroleum Institute Separators
44 42 19  Water Treatment Blowers
44 42 23  Water Treatment Clarifiers
44 42 26  Water Treatment Commuters
44 42 29  Water Treatment Compressors
44 42 33  Water Treatment Digesters
44 42 36  Water Treatment Dissolved Air Flotation Equipment
44 42 39  Water Treatment Grit Collectors
44 42 43  Water Treatment Induced Air Flotation Equipment
44 42 46  Water Treatment Mixers
44 42 49  Water Treatment Oil/Grease Interceptors
44 42 53  Water Treatment Oil/Water Separators
44 42 56  Water Treatment Pumps
44 42 59  Water Treatment Reactors
44 42 63  Water Treatment Sediment Removal Equipment
44 42 66  Water Treatment Skimmers
44 42 69  Water Treatment Spray Equipment
44 42 73  Water Treatment Tanks/Tank Liners

44 43 00  Water Filtration Equipment
44 43 13  Water Filters
  44 43 13.13  Bag Water Filters
  44 43 13.16  Cartridge Water Filters
  44 43 13.19  Fabric Water Filters
  44 43 13.23  Multimedia Water Filters
  44 43 13.26  Packaged Water Filters
44 43 23  Water Filter Presses
44 43 26  Rotary-Drum Water Filtration Equipment
44 43 29  Water Filtration Sand
44 43 33  Water Filtration Screens
44 43 36  Vacuum Water Filtration Equipment

44 44 00  Water Treatment Chemical Systems Equipment
44 44 13  Water Treatment Chemical Feed Equipment
44 44 16  Water Chlorinators
44 44 19  Water Coagulators
44 44 23  Water Dechlorinators
44 44 26  Dissolved-Solids Water Treatment Equipment
44 44 29  Water Emulsifiers
44 44 33  Water Emulsion Crackers
44 44 36  Water Flocculators
44 44 39  Water Fluoridation Equipment
44 44 43  Water Heavy Metals Treatment Equipment
44 44 46  Water Hydrothermal Equipment
44 44 49  Water Oils Treatment Equipment
44 44 53  Water Oxidation/Reduction Equipment
44 44 56  Water Ozone Equipment
44 44 59  Water pH Adjustment Equipment
44 44 63  Water Polymers Equipment
44 44 66  Water Precipitators
44 44 69  Water Pretreatment Equipment
44 44 73  Water Ultraviolet Radiation Equipment

44 45 00  Water Treatment Biological Systems Equipment
44 45 13 Water Biofilters
44 45 16 Water Bubble Membrane Diffusers

**44 46 00 Sludge Treatment and Handling Equipment for Water Treatment Systems**
44 46 13 Sludge Conveyors
44 46 16 Sludge Dewatering Equipment
44 46 19 Sludge Digesters
44 46 23 Sludge Incinerators
44 46 26 Sludge Thickeners

**44 50 00 SOLID WASTE CONTROL**

**44 51 00 Solid Waste Control Equipment**
44 51 13 Solid Waste Compactors
44 51 16 Solid Waste Baling Equipment
44 51 19 Solid Waste Fluffing Equipment
44 51 23 Solid Waste Liquid Extraction Equipment
44 51 26 Solid Waste Containers
44 51 29 Solid Waste Transfer Trailers
44 51 33 Solid Waste Transfer Stations

44 60 00 Unassigned
44 70 00 Unassigned
44 80 00 Unassigned
44 90 00 Unassigned
DIVISION 45 – INDUSTRY-SPECIFIC MANUFACTURING EQUIPMENT

45 00 00  INDUSTRY-SPECIFIC MANUFACTURING EQUIPMENT
45 08 00  Commissioning of Industry-Specific Manufacturing Equipment
45 11 00  Oil and Gas Extraction Equipment
  45 11 01  Operation and Maintenance of Oil and Gas Extraction Equipment
  45 11 06  Schedules for Oil and Gas Extraction Equipment
  45 11 10 thru
  45 12 99  User Defined Oil and Gas Extraction Equipment
45 13 00  Mining Machinery and Equipment
  45 13 01  Operation and Maintenance of Mining Machinery and Equipment
  45 13 06  Schedules for Mining Machinery and Equipment
  45 13 10 thru
  45 14 99  User Defined Mining Machinery and Equipment
45 15 00  Food Manufacturing Equipment
  45 15 01  Operation and Maintenance of Food Manufacturing Equipment
  45 15 06  Schedules for Food Manufacturing Equipment
  45 15 10 thru
  45 16 99  User Defined Food Manufacturing Equipment
45 17 00  Beverage and Tobacco Manufacturing Equipment
  45 17 01  Operation and Maintenance of Beverage and Tobacco Manufacturing Equipment
  45 17 06  Schedules for Beverage and Tobacco Manufacturing Equipment
  45 17 10 thru
  45 18 99  User Defined Beverage and Tobacco Manufacturing Equipment
45 19 00  Textiles and Apparel Manufacturing Equipment
  45 19 01  Operation and Maintenance of Textiles and Apparel Manufacturing Equipment
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Div. 45 – Industry-Specific Manufacturing Equipment

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**48 70 00  Electrical Power Generation Testing**

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